# अभ्यास पुस्तिका

# बाल भारती

## भाग 1

(पहली कक्षा के लिए)

# पुस्तिका

# बाल भारती

## भाग 1

(पहली कक्षा के लिए)

संयुक्ता लूदरा
सत्येन्द्र वर्मा

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
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# प्राक्कथन

भाषा मनुष्य के वैयक्तिक और सामाजिक जीवन के विकास के लिए सबसे उपयोगी साधन है, इसलिए भाषा सीखना व्यक्ति की मूलभूत आवश्यकता है। यह एक सहज प्रक्रिया है। भाषा की शिक्षा के बिना मनुष्य का सामाजिक और बौद्धिक विकास पूर्ण नहीं होता। भाषा का प्रवाह व्यक्ति और समाज में निरंतर चलता रहता है। भाषा शिक्षण का मुख्य उद्देश्य विद्यार्थियों को इस योग्य बनाना है जिससे वे भाषा के प्रवाह में स्वयं तैर सकें।

पाठ्यचर्या, पाठ्यक्रम और पाठ्यसामग्री का निर्माण एक सतत प्रक्रिया है। राष्ट्रीय शिक्षा नीति 1986 के तहत परिषद् ने नवीन पाठ्यपुस्तकों के निर्माण की जो शृंखला प्रारंभ की थी उसमें अभ्यास पुस्तिका बाल भारती भाग 1 प्राथमिक कक्षाओं में मातृभाषा हिन्दी पढ़ाने के लिए निर्मित पुस्तक की पहली कड़ी है। *इस पुस्तक का प्रथम संस्करण 1987 में प्रकाशित किया गया था।* सन् 2000 में परिषद् द्वारा विद्यालयी शिक्षा के लिए राष्ट्रीय पाठ्यचर्या निर्मित की गई और उसके आधार पर पाठ्यक्रमों का नव निर्माण किया गया। इस पाठ्यचर्या और पाठ्यक्रम का मुख्य उद्देश्य है – बस्ते के बोझ को कम करना, पाठ्यसामग्री को अद्यतन बनाना और मूल्यपरक शिक्षा। परिषद् ने पाठ्यचर्या और पाठ्यक्रमों को आधार बनाकर विभिन्न विषयों में नई पाठ्यपुस्तकों का निर्माण तथा अन्य पाठ्यसामग्री में संशोधन/परिवर्धन का कार्य आरंभ किया है।

प्रस्तुत अभ्यास पुस्तिका, बाल भारती भाग 1 की पाठ्यसामग्री पर आधारित है। बाल भारती भाग 1 के विभिन्न पाठों द्वारा बच्चों में हिंदी वर्णमाला के ज्ञान के साथ ही शब्द–ज्ञान तथा अर्थग्रहण संबंधी कुशलताओं का विकास प्रारंभ किया जा चुका है। उनको और अधिक पुष्ट बनाने के लिए तथा लेखन की यांत्रिक कुशलताओं के ज्ञान को सुदृढ़ करने के लिए अभ्यास पुस्तिका का निर्माण किया गया है।

आशा है कि अभ्यास पुस्तिका बाल भारती भाग 1 के संशोधित संस्करण का विद्यार्थियों और शिक्षकों द्वारा स्वागत होगा।

इस अभ्यास पुस्तिका को और अधिक उपयोगी बनाने के लिए अध्यापकों और भाषाविदों द्वारा भेजे गए सुझावों का हम सदैव स्वागत करेंगे।

**जगमोहन सिंह राजपूत**
*निदेशक*
राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्

नई दिल्ली
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    प्रशिक्षण परिषद्
    नई दिल्ली

12. प्रो. रामजन्म शर्मा **(संयोजक)**
    राष्ट्रीय शैक्षिक अनुसंधान और
    प्रशिक्षण परिषद्
    नई दिल्ली

# अभ्यास पुस्तिका के उद्देश्य

बाल भारती भाग 1 में सरल, परिचित और प्रचलित शब्दों का प्रयोग करते हुए पाठों का विकास किया गया है। बच्चों की रुचियों और परिवेश को ध्यान में रखते हुए विभिन्न प्रसंगों, कहानियों और कविताओं का समावेश किया गया है। बाल भारती भाग 1 की इस अभ्यास पुस्तिका में भाषा की मूलभूत योग्यताओं–सुनना, बोलना, पढ़ना तथा लिखना का क्रमिक विकास किया गया है। ये मूलभूत योग्यताएँ आपस में इस तरह गुथी हुई हैं कि किसी एक योग्यता को सिखाते समय अन्य योग्यताएँ स्वतः ही विकसित होती जाती हैं। सुनने और बोलने की कुशलताओं को अलग–अलग सिखाने की कल्पना करना भी असंभव है। इसी बात को ध्यान में रखते हुए प्रस्तुत अभ्यास पुस्तिका में किसी एक उद्देश्य की पूर्ति करते हुए हम अन्य अनेक कुशलताओं को भी बच्चे में विकसित करते जाते हैं।

अभ्यास पुस्तिका के सभी अभ्यास पाठ्यपुस्तक बाल भारती भाग 1 के पाठों पर आधारित हैं। प्रत्येक पाठ से संबंधित कुशलताओं को दृढ़ करने के लिए और प्राप्त ज्ञान को स्थायी बनाने के लिए अभ्यास पुस्तिका में अतिरिक्त अभ्यास दिए गए हैं। जहाँ ये अभ्यास प्रतिभाशाली बच्चों के लिए स्वतः सीखने का मार्ग प्रशस्त करते हैं वहीं देर से सीखने वाले बच्चों को बार–बार अभ्यास द्वारा प्रत्येक योग्यता के अंतर्गत विभिन्न भाषा कुशलताओं के सीखने और समझने का अवसर भी प्रदान करते हैं।

प्रत्येक अभ्यास से संबंधित उद्देश्य और निर्देश साथ–ही–साथ दिए गए हैं। ये संकेत शिक्षकों के लिए ही हैं क्योंकि बच्चे अभी इन्हें नहीं पढ़ सकते। किसी भी अभ्यास को कराने से पहले उसे श्यामपट पर आवश्यक उदाहरण देकर बच्चों को अच्छी तरह बता देना चाहिए कि उन्हें वह अभ्यास किस प्रकार करना है। शिक्षक इन्हें अपनी सुविधानुसार कार्डों की सहायता से भी करवा सकते हैं। मंद गति से सीखने वाले बच्चों की आवश्यकताओं को देखते हुए शिक्षक स्वयं इसी प्रकार के अन्य अभ्यासों का निर्माण भी कर सकते हैं। यह आवश्यक है कि शिक्षक बच्चों की अभ्यास पुस्तिकाओं की नियमित जाँच करें और उनकी अशुद्धियों को ठीक करवाएँ।

पाठ्यपुस्तक में सीखे गए स्वर, व्यंजन, मात्रा और संयुक्ताक्षरों को लिखने के अभ्यास भी इसमें दिए गए हैं जो उत्तरोत्तर शब्दों और वाक्यों की लिखने तथा सुडौल और सुंदर लेख में सहायता प्रदान करते हैं। वर्णों को लिखना सिखाने के लिए क्रमिक चरण भी दिए गए हैं जिससे यह पुस्तिका एक तरह से सुलेख–पुस्तिका का भी काम करती है। शब्दों का प्रसंगानुसार प्रयोग, वाक्य–निर्माण तथा व्यावहारिक व्याकरण का ज्ञान भी कराने का प्रयास किया गया है। इस अभ्यास पुस्तिका में बच्चों की रचनात्मक प्रवृत्ति और कल्पनाशक्ति के विकास के लिए भी पर्याप्त अभ्यास दिए गए हैं। बच्चों में कल्पनाशक्ति का सहज विकास हो सके इसके लिए चित्र बनाने वाले अभ्यास भी अभ्यास पुस्तिका में दिए गए हैं।

# गांधी जी का जन्तर

तुम्हें एक जन्तर देता हूं। जब भी तुम्हें सन्देह हो या तुम्हारा अहम् तुम पर हावी होने लगे, तो यह कसौटी आजमाओ :

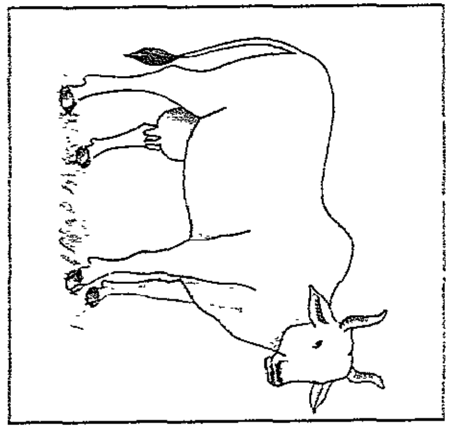
जो सबसे गरीब और कमज़ोर आदमी तुमने देखा हो, उसकी शकल याद करो और अपने दिल से पूछो कि जो कदम उठाने का तुम विचार कर रहे हो, वह उस आदमी के लिए कितना उपयोगी होगा। क्या उससे उसे कुछ लाभ पहुंचेगा? क्या उससे वह अपने ही जीवन और भाग्य पर कुछ काबू रख सकेगा? यानी क्या उससे उन करोड़ों लोगों को स्वराज्य मिल सकेगा जिनके पेट भूखे हैं और आत्मा अतृप्त है?

तब तुम देखोगे कि तुम्हारा सन्देह मिट रहा है और अहम् समाप्त होता जा रहा है।

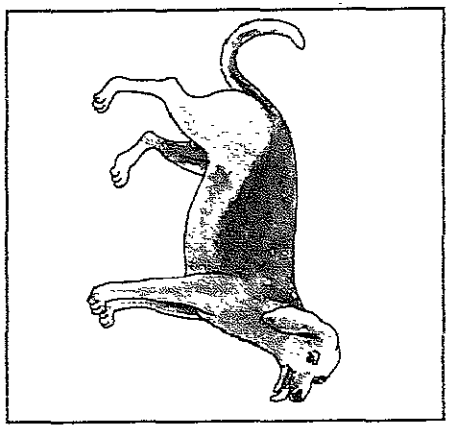
मो॰ गांधी

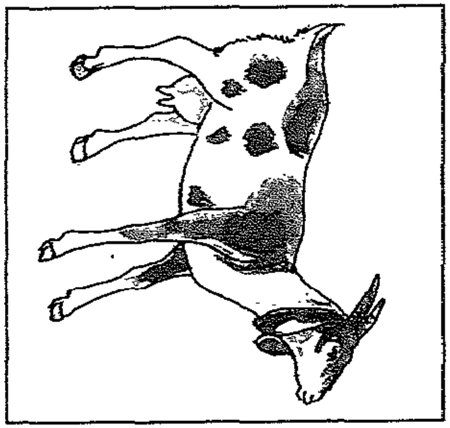
उद्देश्य : सूक्ष्म वस्तु की ओर ध्यान दिलाना।

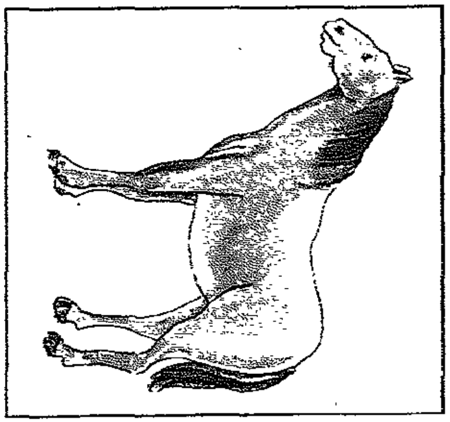
निर्देश : इन पशुओं के विषय में बातचीत करने के बाद बच्चों से कहिए : (1) गाय की पूँछ पर गोला लगाओ। (2) गाय के सींगों पर गोला लगाओ। हाथी की सूँड़, हाथी के कान, कुत्ते की पूँछ, कुत्ते की आँख, बकरी के पैर, बकरी के सींग, घोड़े के मुँह तथा खुर पर गोला लगाओ।





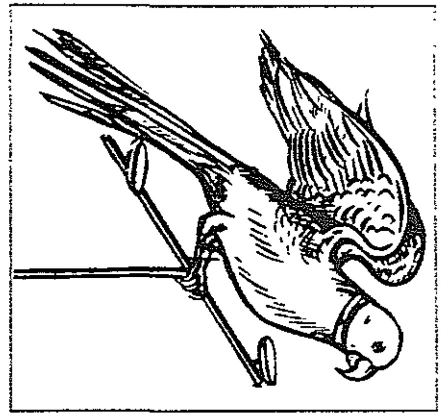


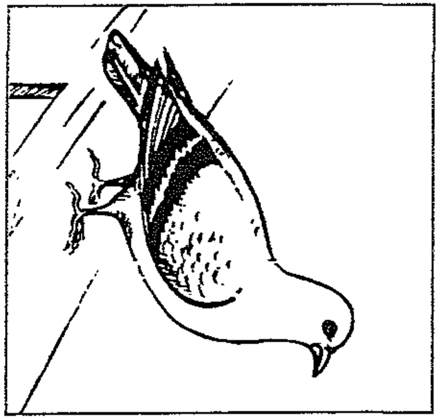


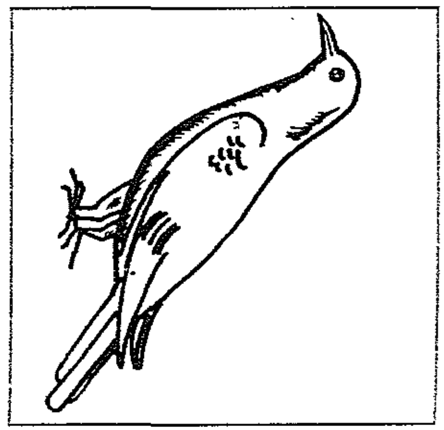


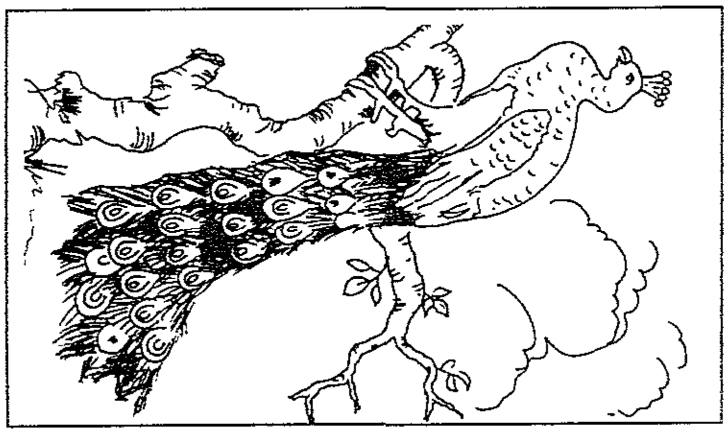
उद्देश्य : 1. गति नियंत्रण की कुशलता का विकास करना। 2. रंगों की पहचान करना।

निर्देश : बच्चों से कहिए : पहला चित्र देखो। बताओ, यह किसका चित्र है? तोता किस रंग का होता है? तोते की चोंच किस रंग की होती है? अब इस चित्र में रंग भरो। इसी प्रकार कबूतर, कौआ और अन्य सभी चित्रों में रंग भरवाइए।



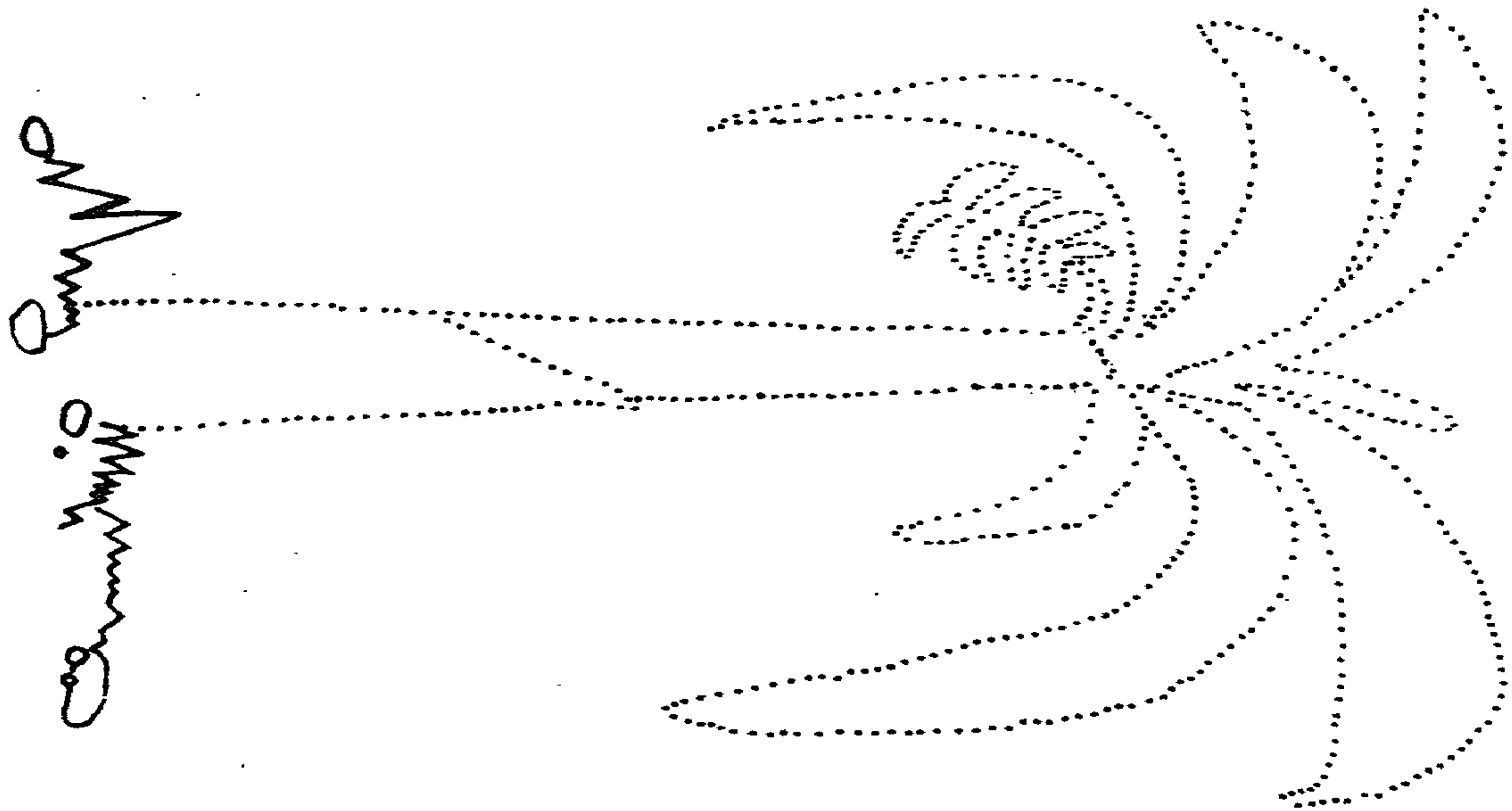






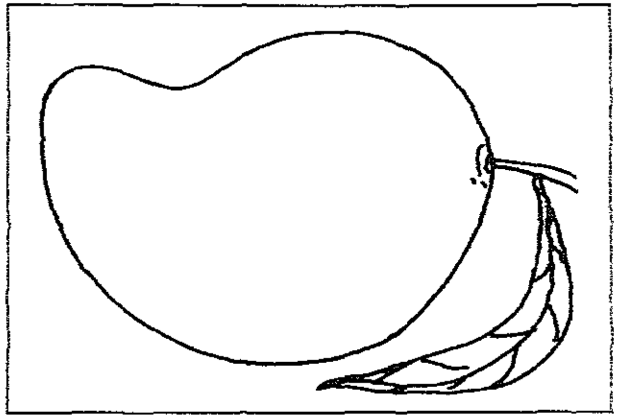
उद्देश्य : 1. गति–नियंत्रण की कुशलता का विकास करना। 2. रंगों की पहचान करना।

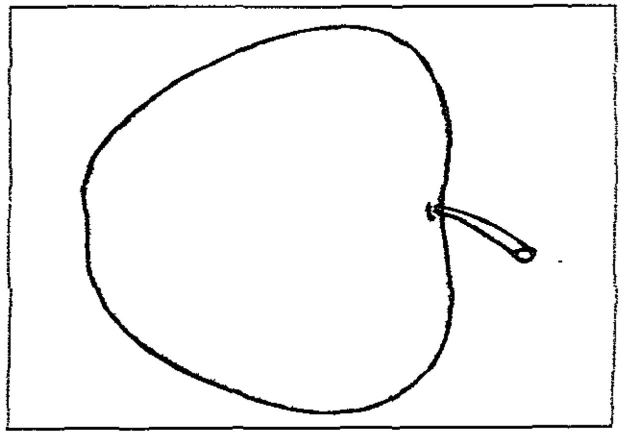
निर्देश : बच्चों से कहिए : बिंदुओं को मिलाकर चित्र पूरा करें; उनसे पूछिए : यह किसका पेड़ है? इसमें कौन सा फल लगा है? अब बच्चो से इस चित्र में रंग भरवाइए।

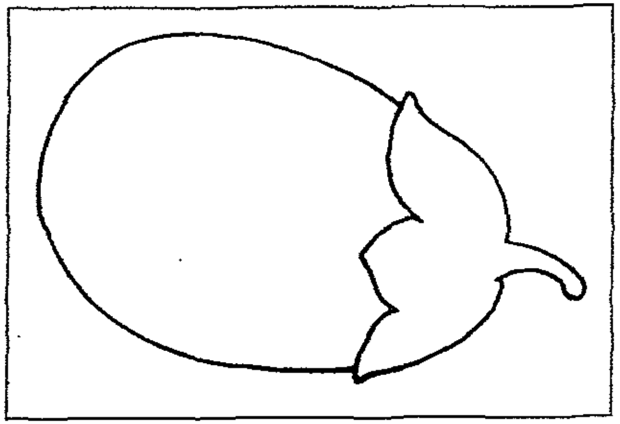


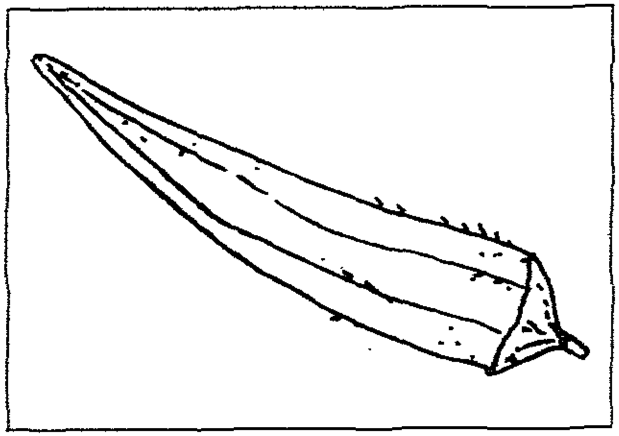
उद्देश्य : 1. गति–नियंत्रण की कुशलता का विकास करना। 2. रंगों की पहचान करना।

निर्देश : बच्चों से पूछिए : आम किस रंग का होता है? सेब का रंग कैसा होता है? अब बच्चों से इन चित्रों में रंग भरवाइए। इसी प्रकार बैंगन और भिंडी के विषय में बातचीत कीजिए और रंग भरवाइए।



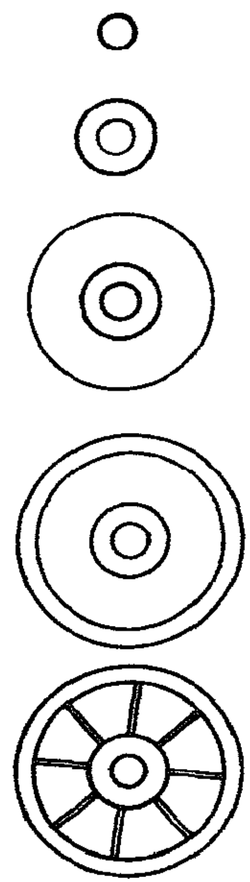


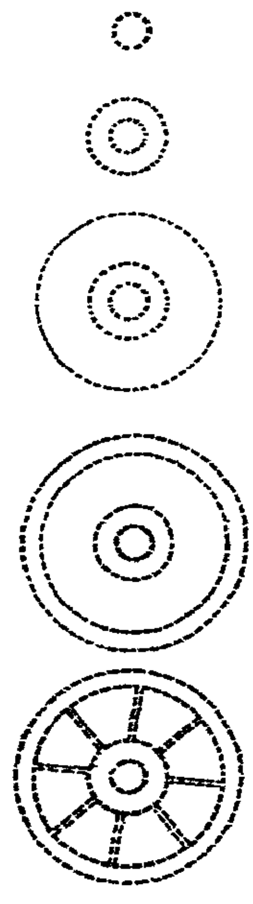


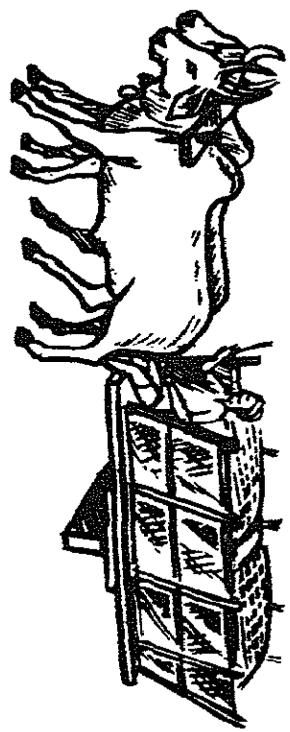


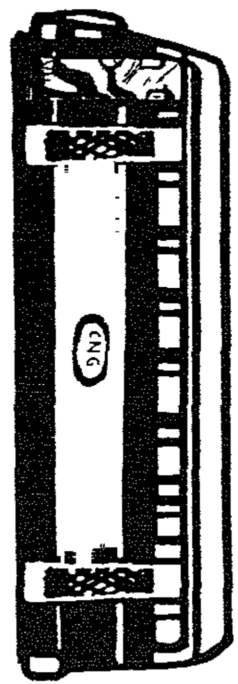
उद्देश्य : लेखनारंभ की कुशलता का विकास करना।

निर्देश : बच्चों से कहिए : ऊपर के चित्र देखो। यह पहिया बना है। नीचे के चित्रों में बिंदु मिलाकर पहिए का चित्र पूरा करो। अब बैलगाड़ी का चित्र देखो। बैलगाड़ी का कौन सा भाग नहीं बना है? (पहिया शब्द निकलवाइए)। उसे बनाओ। बस का चित्र देखो। इसे पूरा करो।



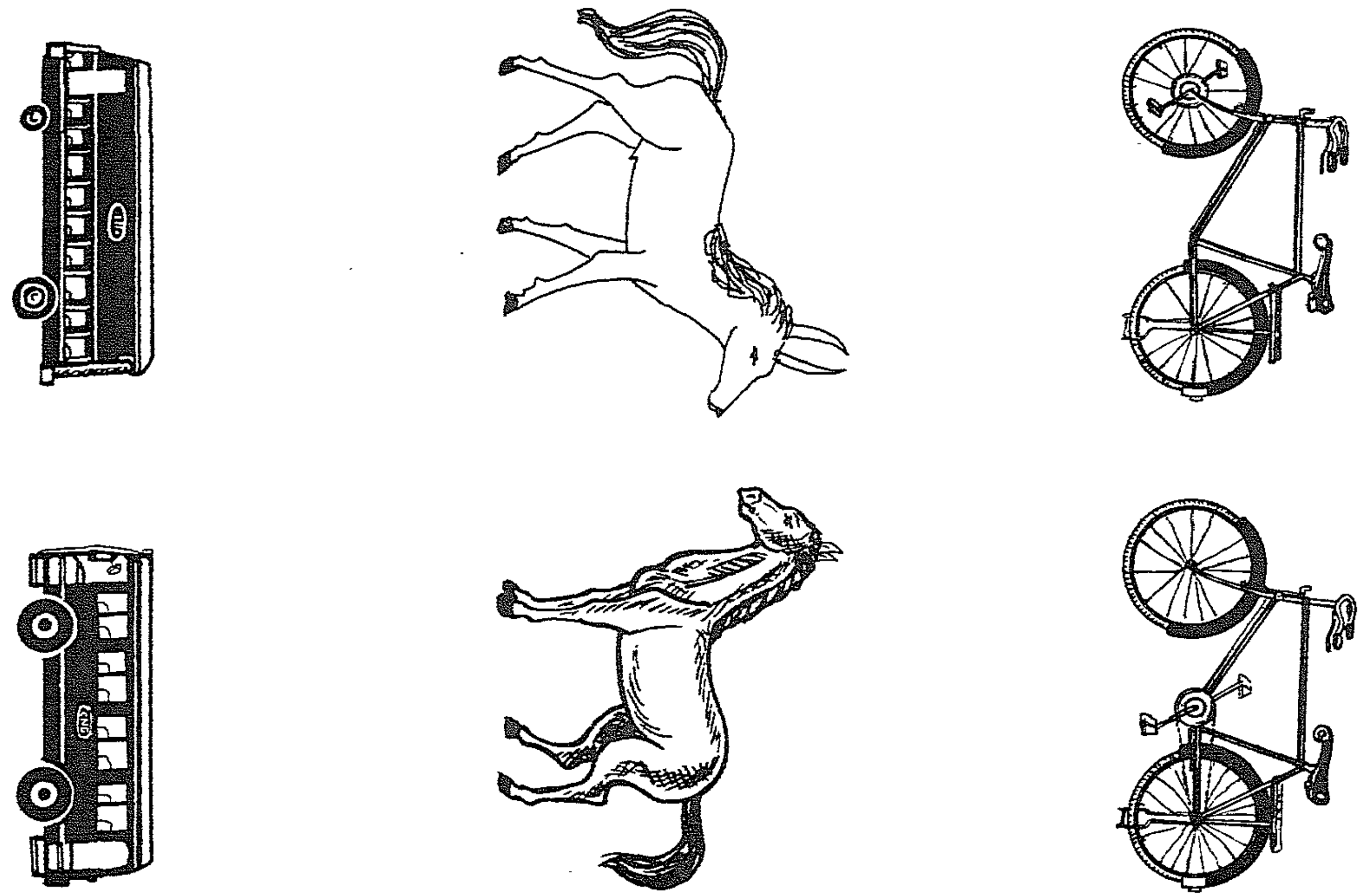






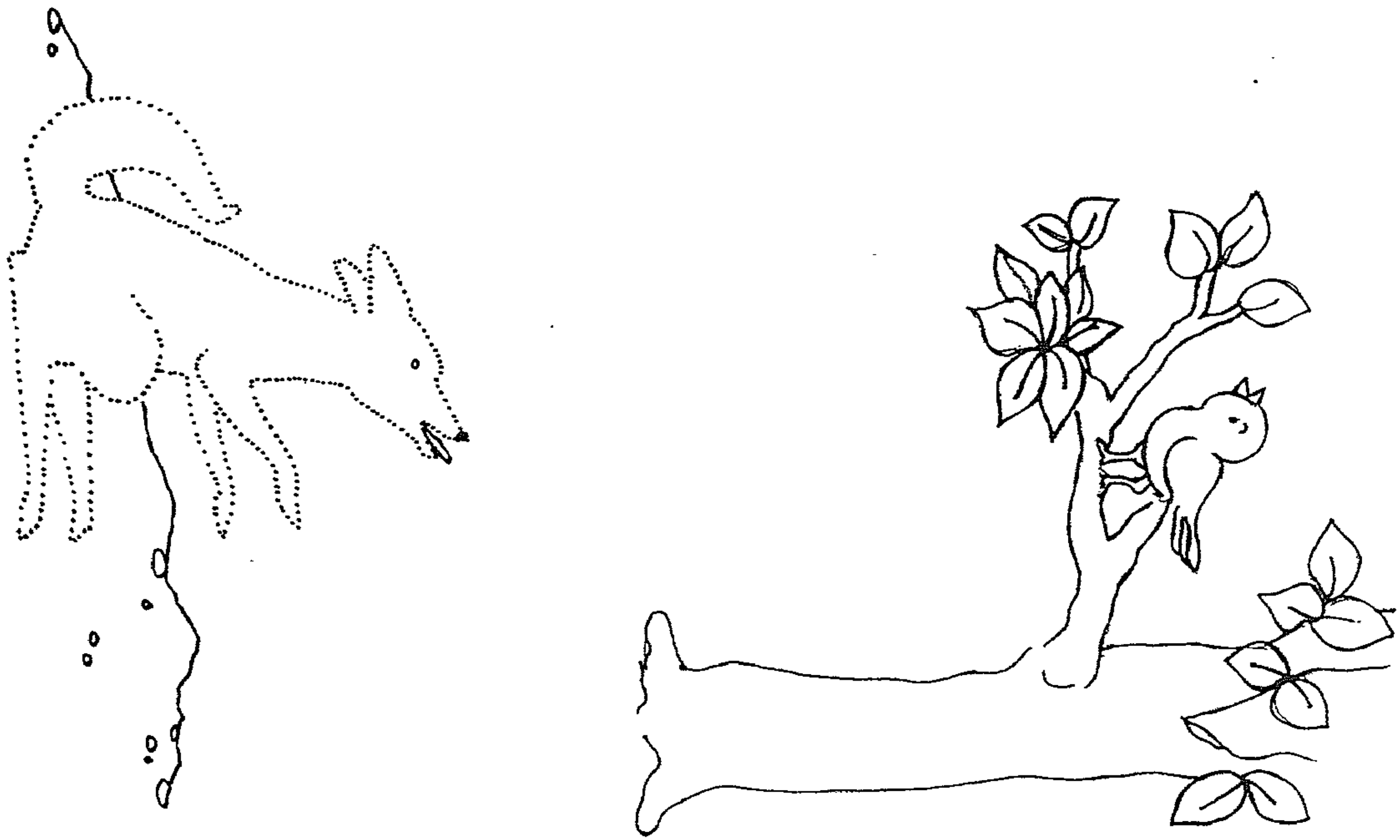
उद्देश्य : असंगत बात का पता लगाना।

निर्देश : साइकिल के दोनों चित्र दिखाइए। पूछिए : साइकिल का सही चित्र कौन सा है? गलत चित्र में जहाँ–जहाँ गलती हो (X) लगवाइए। इसी प्रकार दूसरी और तीसरी पंक्ति के चित्रों में जहाँ गलती हो (X) लगवाइए।



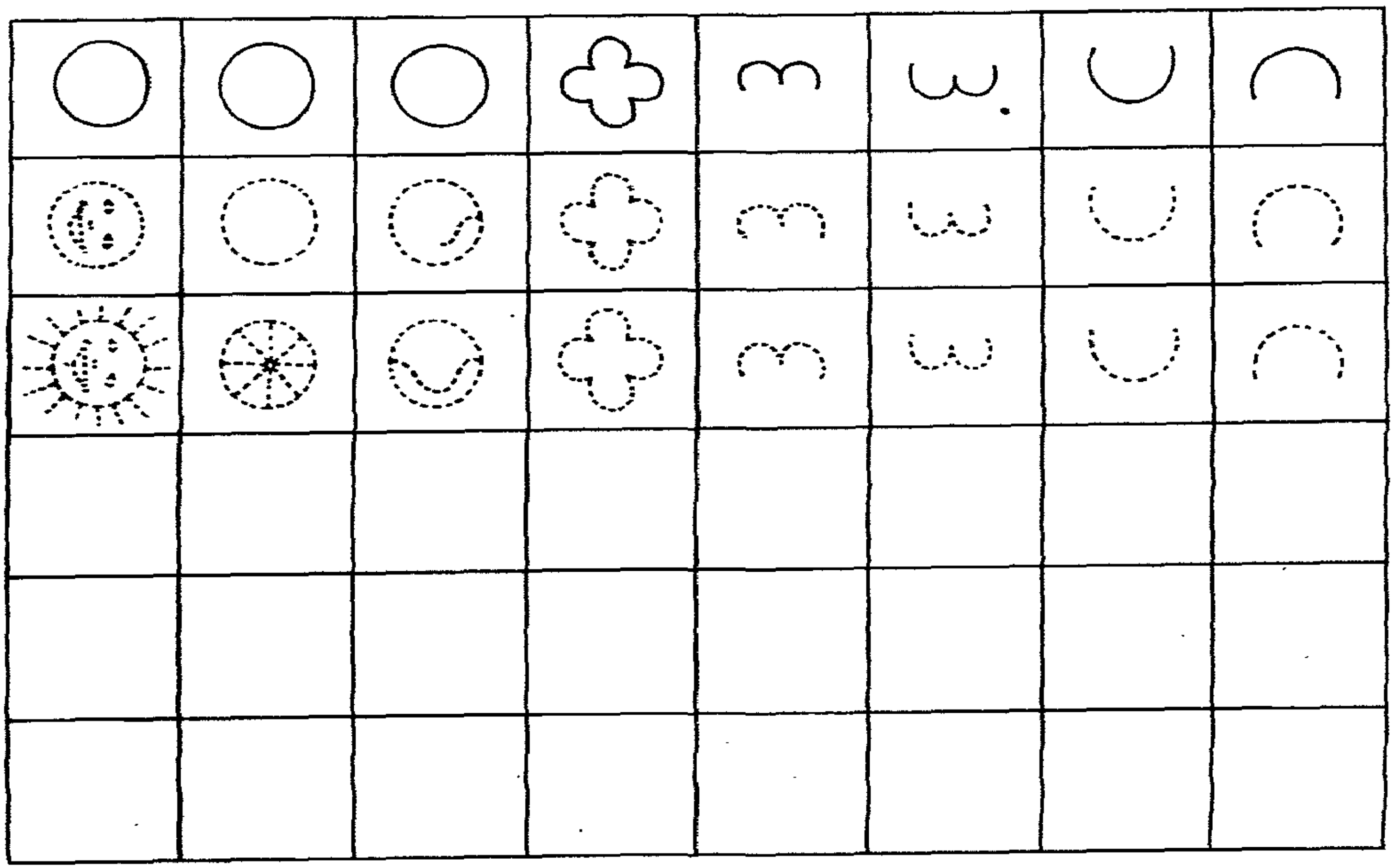
उद्देश्य : 1. रंगों से परिचित कराना। 2. गति–नियंत्रण की कुशलता का विकास करना।

निर्देश : कहिए : इस चित्र में रंग भरो।



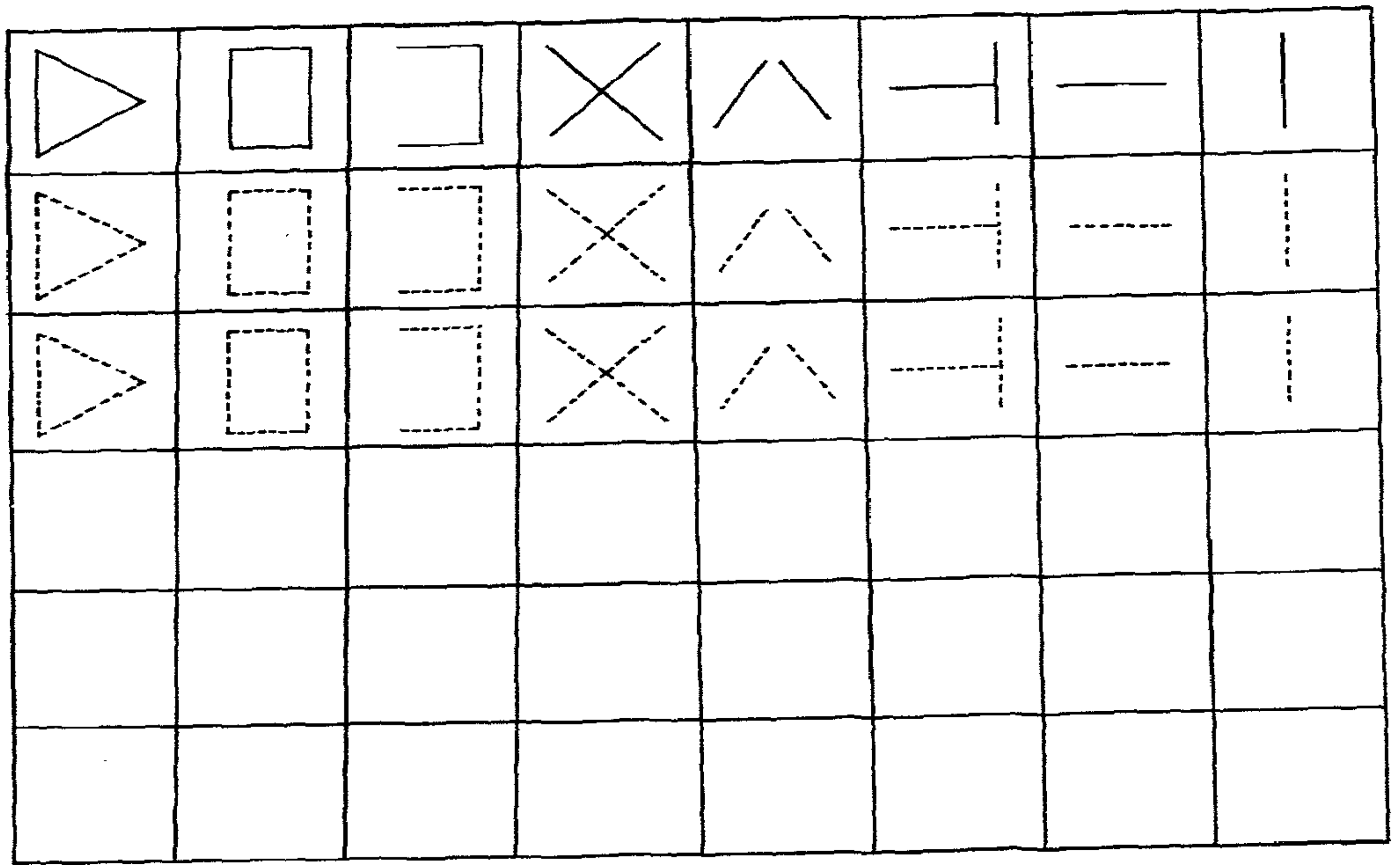
उद्देश्य : 1. मूल आकृतियों का अभ्यास कराना। 2. गति–नियंत्रण की कुशलता का विकास करना।

निर्देश : बाईं ओर बनी आकृतियों को दिखाकर कहिए : दाईं ओर की आकृतियों के बिंदुओं को मिलाकर उन्हें पूरा करो। ऐसे चित्र खाली जगहों में बनाओ।



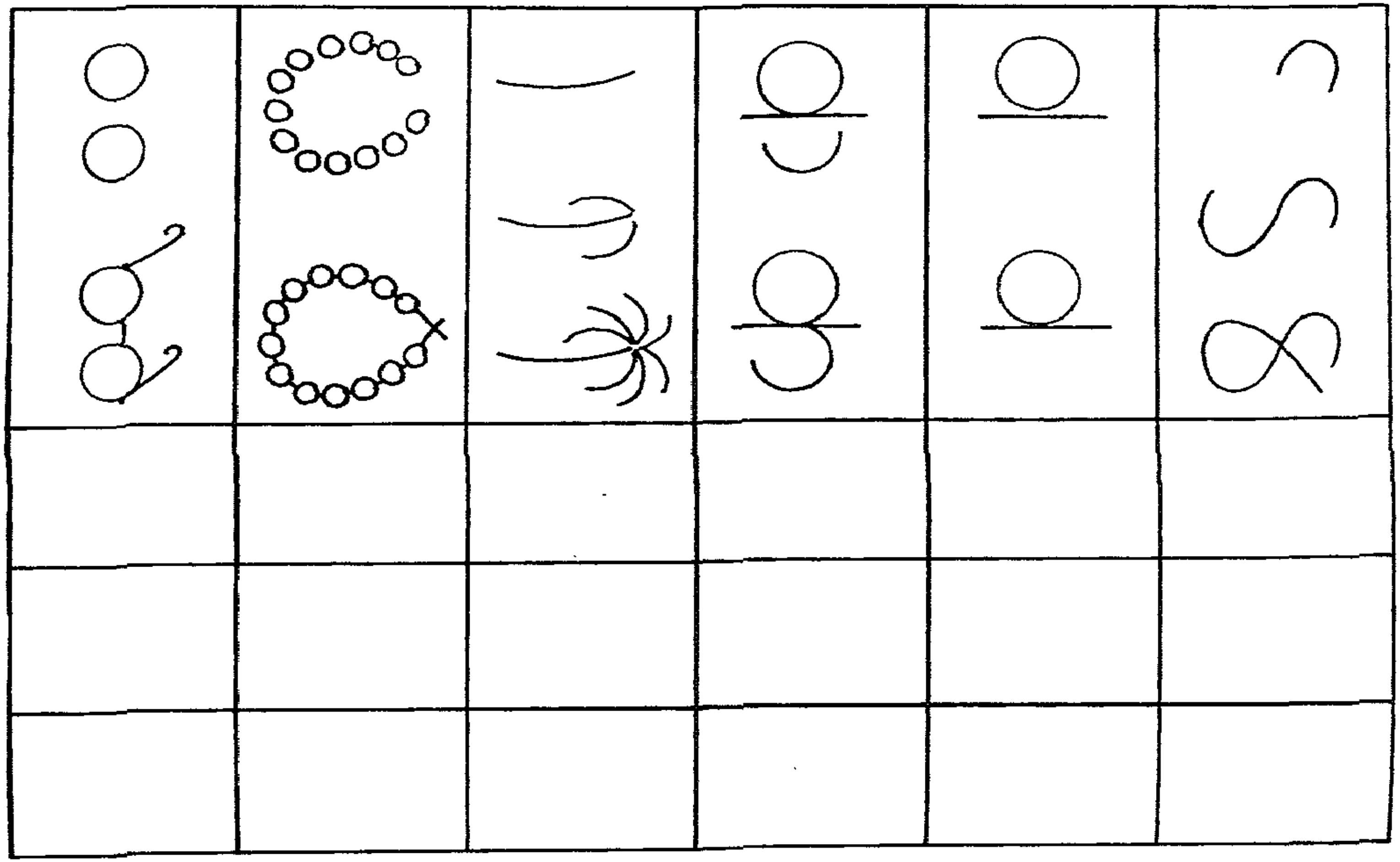
उद्देश्य : 1. मूल आकृतियों का अभ्यास करवाना। 2. गति–नियंत्रण की कुशलता का विकास करना।

निर्देश : बाई ओर बनी आकृतियों को दिखाकर कहिए : विंदुओं को मिलाकर दाई ओर की आकृतियों को पूरा करो। ऐसे चित्र खाली जगहों में बनाओ।



उद्‌देश्य : 1. लेखनारंभ की कुशलता का विकास करना। 2. चित्रांकन में रुचि उत्पन्न करना।

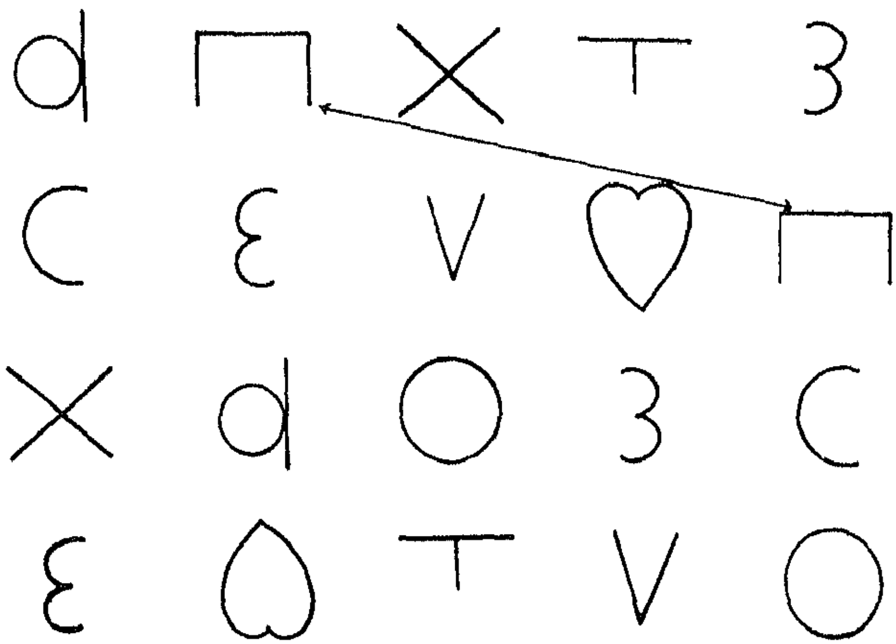
निर्देश : बाईं ओर बनी आकृतियों को दिखाकर कहिए : ऐसे चित्र खाली जगह मं बनाओ।



# पाठ एक

## अभ्यास 1

उद्देश्य : आकृतियों को पहचानना।
निर्देश : एक जैसी बनावट वाली आकृतियों को रेखा खींचकर मिलवाइए।



## अभ्यास 2

उद्देश्य : 1. शब्दों (सीखे हुए वर्णों से बने) की आकृतियों में अंतर करना।
2. शब्द पढ़ने का अभ्यास।
निर्देश : प्रत्येक पंक्ति में पहले बाईं ओर के शब्द को देखने के लिए कहिए। फिर उसे दाईं ओर के शब्दों में से ढूँढवाकर उसके नीचे रेखा खिंचवाइए।

| | | | |
|---|---|---|---|
| बस | सब | नल | बस |
| नल | नल | बल | नस |
| सब | बस | सब | नल |
| बन | सब | बल | बन |

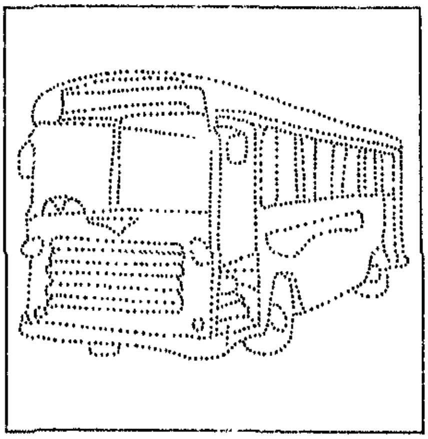
## अभ्यास 3

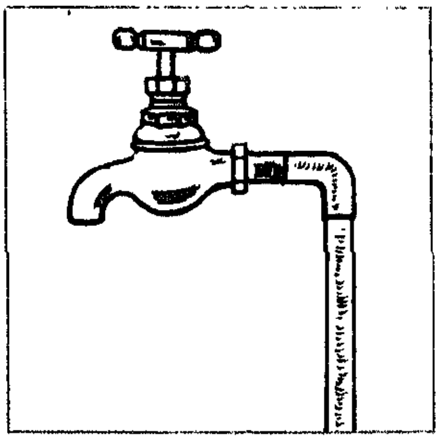
उद्देश्य : वर्णों की आकृति की पहचान।
निर्देश : बाईं ओर के लिखे वर्ण को दाईं ओर के शब्दों से ढुँढवाकर उसके चारों ओर गोला लगवाइए।

| | | | |
|---|---|---|---|
| ब | बस | नल | सब |
| न | सन | सब | नल |
| स | बल | सब | बस |
| ल | बल | नल | बस |

## अभ्यास 4

उद्देश्य : चित्र बनाना।
निर्देश : बिंदुओं को मिलवाकर बस का चित्र पूरा करवाइए। नल के नीचे बाल्टी का चित्र बनवाइए। चित्रों में रंग भरवाइए।





# पाठ दो

## अभ्यास 1

उद्देश्य : 1. समान आकृति वाले शब्द पहचानना।
2. शब्द पढ़ने का अभ्यास।

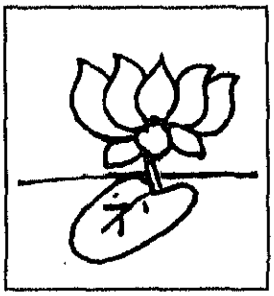
निर्देश : प्रत्येक पंक्ति में पहले बाईं ओर के शब्द को देखने के लिए कहिए। फिर उसे दाईं ओर के शब्दों में से ढुँढ़वाकर उसके नीचे रेखा खिंचवाइए।

| | | | |
|---|---|---|---|
| घर | बस | घर | रस |
| कल | कब | कम | कल |
| मन | मन | नम | कम |
| कलम | नमक | कलम | कमर |

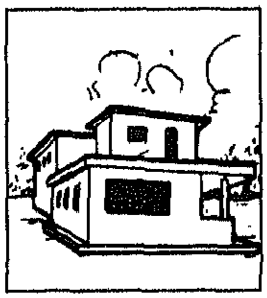
## अभ्यास 2

उद्देश्य : 1. चित्र–संकेत की सहायता से शब्द पहचानना।
2. गति–नियंत्रण की कुशलता का विकास करना।

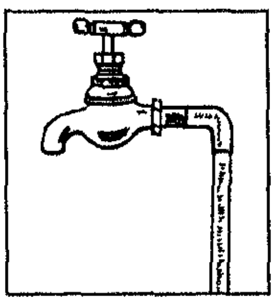
निर्देश : बच्चों से कहिए, चित्र को देखें और चित्र के नाम को ढूँढकर, चित्र तक रेखा खींचें। जैसे कलम के चित्र से कलम तक रेखा खींची गई है। फिर चित्र में रंग भरो।



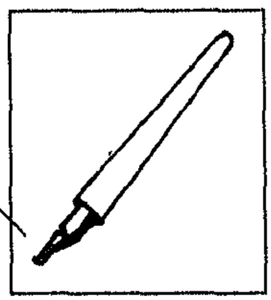
नल



कमल



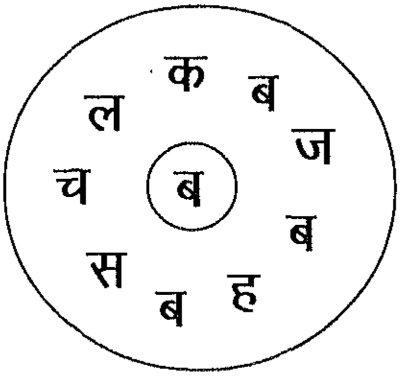
कलम

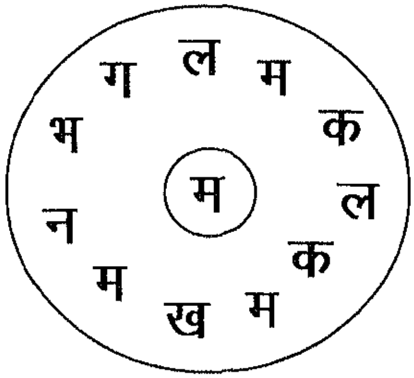


घर

## अभ्यास 3

उद्देश्य : सीखे हुए वर्णों को पहचानने का अभ्यास।
निर्देश : बच्चों से कहिए, घेरे के बीच में लिखे वर्ण को घेरे में लिखे उन्हीं के समान वर्णों से रेखा खींचकर मिलाओ।




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## अभ्यास 4

उद्देश्य : वर्ण लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, रचना क्रम के अनुसार प्रत्येक वर्ण को लिखो। ( शिक्षक ठीक आकृतियाँ बनाने में बच्चों की सहायता करें )।

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# पाठ तीन

## अभ्यास 1

उद्देश्य : 1. शब्दों की आकृतियों में अंतर करना।
2. शब्द पढ़ने का अभ्यास।

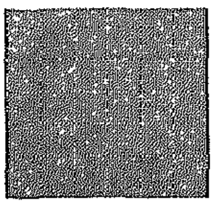
निर्देश : बच्चों से कहिए, प्रत्येक पंक्ति में पहले बाईं ओर के शब्द को देखो। फिर उसे दाईं ओर के शब्दों में से ढूँढ़कर उसके नीचे रेखा खींचो।

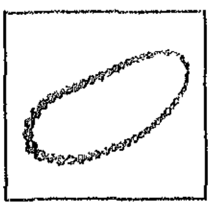
| | | | |
|---|---|---|---|
| कान | नाक | कान | काम |
| माला | ताला | काला | माला |
| रात | रात | तार | कार |

## अभ्यास 2

उद्देश्य : चित्र की सहायता से शब्दों को पहचानना।

निर्देश : बच्चों से कहिए, चित्र से चित्र के नाम तक रेखा खींचो।





ताला

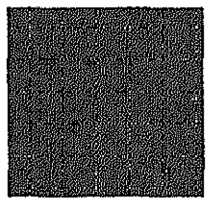
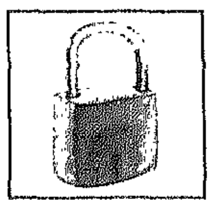
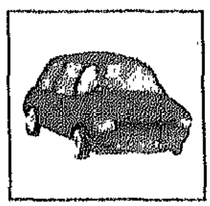
लाल

माला

नाक

काला

कार

# अभ्यास 3

उद्देश्य : वर्ण तथा आ की मात्रा ( T ) लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, प्रत्येक वर्ण के लिखने का क्रम समझो। इन वर्णों को तीन–तीन बार लिखो। अंतिम दो वर्णों में ( T ) लगाओ।

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# पाठ चार

## अभ्यास 1

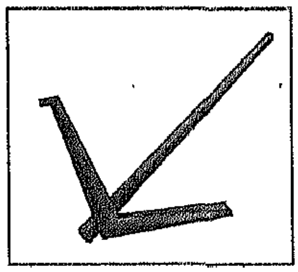
उद्देश्य : 1. शब्दों की आकृतियों में अंतर करना।
2. शब्द को पढ़ने का अभ्यास।
निर्देश : बच्चों से कहिए, प्रत्येक पंक्ति में बाईं ओर के शब्द को पढ़ो। फिर उसे दाईं ओर के शब्दों में से ढूँढकर उसके नीचे रेखा खींचो।

| | | | |
|---|---|---|---|
| हल | चल | हल | दल |
| बादल | तबला | बदला | बादल |
| चना | चाक | चना | नाच |
| नाव | नाव | दवा | मान |

## अभ्यास 2

उद्देश्य : चित्र देखकर वस्तु का नाम पहचानना।
निर्देश : बच्चों से कहिए, चित्र से उसके नाम तक रेखा खींचो।



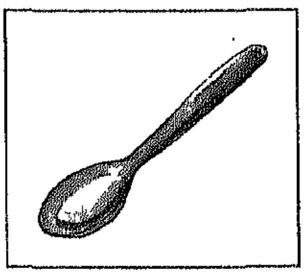


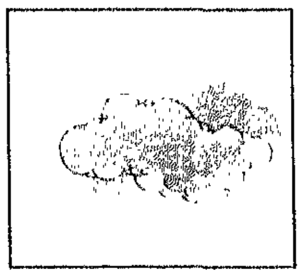
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हल

बादल





## अभ्यास 3

उद्देश्य : वर्ण लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, प्रत्येक वर्ण को लिखने का क्रम समझो। इन वर्णों को तीन बार लिखो।

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## अभ्यास 4

उद्देश्य : वर्ण लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, ऊपर लिखे वर्ण नीचे की खाली जगह में लिखो। अब इन शब्दों को पढ़ो।

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| ....वा | ....ल | ....ल | ....मचा | ....वा | ....वात |

# पाठ पाँच

## अभ्यास 1

उद्देश्य : 1. शब्दों की आकृतियों में अंतर करना।
2. शब्द पढ़ने का अभ्यास।
निर्देश : बच्चों से कहिए, प्रत्येक पंक्ति में बाईं ओर के शब्द को पढ़ो। फिर उसे दाईं ओर के शब्दों में से ढूँढ़कर उसके नीचे रेखा खींचो।

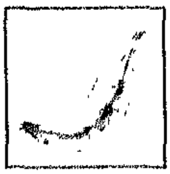
| | | | |
|---|---|---|---|
| रेल | केला | मेल | रेल |
| जब | जेब | जब | कब |
| खाना | बाजा | खाना | रखना |
| जाल | जाल | जल | बजा |
| बेल | खेत | मेल | बेल |

## अभ्यास 2

उद्देश्य : सही शब्द चुनना।
निर्देश : बच्चों से कहिए, चित्र के नाम पर गोला लगाओ।



जाल नाक नाव चाक



मेला केला कला बेला



सेब बेर खेल बेल

उद्देश्य : वर्ण लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, प्रत्येक वर्ण को लिखने का क्रम समझो। इन वर्णों को तीन बार लिखो।

## अभ्यास 3

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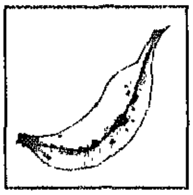
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उद्देश्य : 'े' (ए की मात्रा) से परिचय तथा उसको लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, अभ्यास में दिए गए शब्दों को पढ़ो। चित्र देखकर उनके नाम पूरे करो और नमूने के अनुसार खाली स्थान भरो।

## अभ्यास 4

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बल बेल



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र रे क के म मे

न ........ द ........ ल ........

पाठ छह

# मेला

उद्देश्य : 1. सही शब्द चुनवाना।
2. शब्द-ज्ञान बढ़ाना।
निर्देश : बच्चों से कहिए, खाली जगह में ठीक शब्द चुनकर लिखो।

## अभ्यास 1

| | |
|---|---|
| केलेवाले .................... दे। | अनार |
| .................... | केला |
| कमला .................... बजा। | बाजा |
| .................... | माला |
| मदन .................... ला। | करेला |
| .................... | मेला |

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उद्देश्य : 1. कहानी के अनुसार प्रासंगिक बात का पता लगाना।
2. वाक्यों को पढ़ने का अभ्यास।
निर्देश : बच्चों से कहिए, इन वाक्यों को पढ़ो जो वाक्य इस कहानी के बारे में हैं, उनके नीचे रेखा खींचो।

## अभ्यास 2

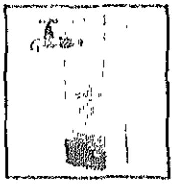
बाजेवाले, बाजा दे।
रेल का खेल देख।
कमला, बाजा बजा।

मदन केला खा।
ले कमला, केला खा।
अब केला मत खा।

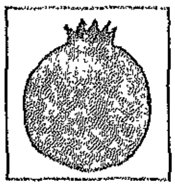
## अभ्यास 3

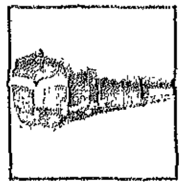
उद्देश्य : 1. शब्द-ज्ञान बढ़ाना।
2. शब्द लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, ऊपर लिखे शब्दों को पढ़ो। अब नीचे बने चित्रों के सामने ऊपर के शब्दों में से चुनकर उनके नाम खाली जगह में लिखो।

# केला नल रेल अनार

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## अभ्यास 4

उद्देश्य : 1. वाक्य लिखने का अभ्यास। 2. सुलेख।
निर्देश : बच्चों से कहिए, इस वाक्य को लिखो।

# बाजेवाले बाजा दे।

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## अभ्यास 1

उद्देश्य : वर्ण और शब्द पढ़ने और लिखने का अभ्यास।

निर्देश : बच्चों से कहिए, दिए गए वर्णों और शब्दों को पढ़ो। खाली स्थान में इन शब्दों को लिखो।

| | | | |
|---|---|---|---|
| ब | बा | बे | बो |
| बस | बात | बेर | बोल |
| .............. | .............. | .............. | .............. |
| .............. | .............. | .............. | .............. |
| .............. | .............. | .............. | .............. |
| .............. | .............. | .............. | .............. |

## अभ्यास 2

उद्देश्य : वर्ण तथा मात्रा लिखने का अभ्यास।

निर्देश : बच्चों से कहिए, वर्णों के लिखने का क्रम समझो। प्रत्येक वर्ण को तीन बार लिखो।

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## अभ्यास 3

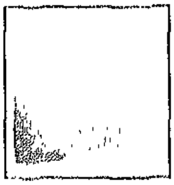
उद्देश्य : रचनात्मक अभिव्यक्ति का विकास।

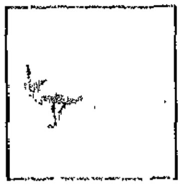
निर्देश : बच्चों से कहिए, कोई चित्र बनाओ।

## अभ्यास 4

उद्देश्य : 1. शब्दों को पढ़ने का अभ्यास।
2. चित्रों के नाम लिखना।
निर्देश : बच्चों से कहिए, इन शब्दों को पढ़ो। एक–एक करके चित्र देखो। चित्र का नाम ऊपर के शब्दों में से चुनकर सामने की खाली जगह में लिखो।

| | | | |
|---|---|---|---|
| तोता | लोहा | थन | मोर |
| बाहर | हाथ | बालक | अदरक |

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## अभ्यास 5

उद्देश्य : सुलेख का अभ्यास।
निर्देश : बच्चों से कहिए, इन शब्दों को लिखो।

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पाठ आठ

# मेले से घर

## अभ्यास 1

उद्देश्य : 1. शब्द-ज्ञान बढ़ाना
2. सही शब्द चुनना।

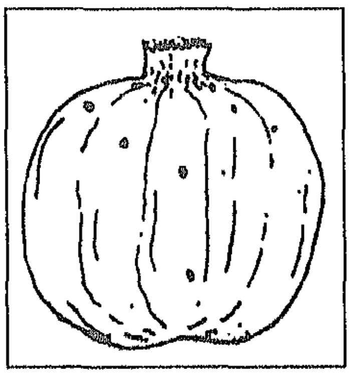
निर्देश : बच्चों से कहिए, सामने लिखे शब्दों में से सही शब्द चुनकर वाक्य की खाली जगह में लिखो।

| | | |
|---|---|---|
| लो, .......................... | खाओ। | घर |
| अपने .......................... | चलो। | बाजा |
| अब .......................... | मत बजा। | माला |
| बसवाले, .......................... | रोको। | खाना |
| कमला, .......................... | पहन। | बस |

## अभ्यास 2

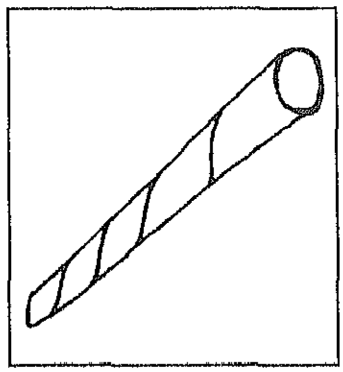
उद्देश्य : 1. गति–नियंत्रण की कुशलता का विकास।
2. चित्र देखकर उसका नाम लिखने का अभ्यास।

निर्देश : बच्चों से कहिए, इन चित्रों में रंग भरो। इनके नाम नीचे लिखो।



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## अभ्यास 3

उद्देश्य : 1. घटनाक्रम को समझकर वाक्यों को क्रम में रखना। 2. वाक्य पढ़ने का अभ्यास।

निर्देश : बच्चों से कहिए, इन वाक्यों को पढ़ो। सोचो, पहले क्या हुआ, फिर क्या हुआ और उसके बाद क्या हुआ। 'क' भाग की तरह 'ख' के सामने 1, 2, 3 लिखो।

**(क) 2. बस से घर चलो।**

**3. बसवाले, बस रोको।**

**1. देर मत करो।**

**(ख) ... मदन, अब सो जा।**

**... बाजा मत बजा।**

**... पहले खाना खा।**

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## अभ्यास 4

उद्देश्य : सुलेख का अभ्यास।

निर्देश : बच्चों से कहिए, ऊपर लिखे वाक्य को पढ़कर नीचे लिखो।

**मेरे साथ घर चलो।**

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उद्देश्य : 1. शब्दों की आकृतियों में विभेदीकरण।
2. शब्द को पढ़ने का अभ्यास।

निर्देश : बच्चों से कहिए, प्रत्येक पंक्ति में पहले बाईं ओर के शब्द को पढ़ो। अब दाईं ओर के शब्दों में से उस शब्द को ढूँढकर उसके नीचे रेखा खींचो।

## अभ्यास 1

| | | | |
|---|---|---|---|
| नानी | रानी | नानी | नीना |
| बाग | बाघ | नाव | बाग |
| चील | चील | लीची | नीचे |
| आम | आग | आज | आम |

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उद्देश्य : 1. शब्द पढ़ने का अभ्यास।
2. चित्रों के लिए सही शब्द चुनना।

निर्देश : बच्चों से कहिए, इन शब्दों को पढ़ो। नीचे के चित्र देखो। इनके नाम ऊपर के शब्दों में से चुनकर चित्र के सामने खाली जगह में लिखो।

## अभ्यास 2

रेल सहेली नाम बकरी

गमला बाघ पीला हाथी



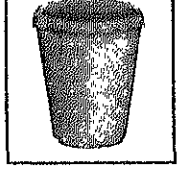
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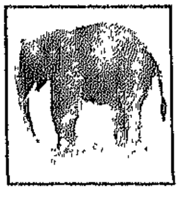
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## अभ्यास 3

उद्देश्य : लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, इन वर्णों को दिए गए क्रम के अनुसार लिखो।

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च  ची  ची ..................................................

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## अभ्यास 4

उद्देश्य : लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, इन शब्दों को पढ़ो। नीचे खाली जगह में अ, आ लिखो। अब इन शब्दों को पढ़ो।

| | |
|---|---|
| अ | आ |
| अब | आम |
| अनार | आज |
| अमर | आना |
| .......पना | .......ग |
| .......दरक | .......ए |

पाठ दस

# कमला की सहेली

## अभ्यास 1

उद्देश्य : कहानी के अनुसार प्रासंगिक बात का पता लगाना।
निर्देश : बच्चों से कहिए, इन वाक्यों को पढ़ो। जो वाक्य इस कहानी के बारे में है, उनके नीचे रेखा खींचो।

मेले से हम बाजा लाए।
मेले से हम अनार लाए।
मेले से हम माला लाए।

मीरा, देख मोती।
आज, मेरे घर चल।
ले, बाजा बजा।

## अभ्यास 2

उद्देश्य : सही शब्द चुनकर वाक्य पूरा करना।
निर्देश : बच्चों से कहिए, वाक्य की खाली जगह में सामने के दो शब्दों में से सही शब्द ढूँढ़कर लिखो।

| | |
|---|---|
| मीरा ............ गाएगी। | खाना<br>गाना |
| मेरी ............ देख। | माला<br>बाजा |
| देख, मेरी ............ माला। | लाल<br>काला |

## अभ्यास 3

उद्देश्य : 1. शब्द निर्माण।
2. शब्द पढ़ने का अभ्यास।

निर्देश : बच्चों से कहिए, दिए गए शब्दों को पढ़ो। वर्णों का स्थान बदलकर नए शब्द बनाओ और उन्हें खाली जगह में लिखो। (उदाहरण देखो।)

| | |
|---|---|
| हवा | वाह |
| खीरा | राखी |
| बस | ........................ |
| जेब | ........................ |
| नाच | ........................ |
| रहा | ........................ |

## अभ्यास 4

उद्देश्य : 1. वाक्य लिखने का अभ्यास।
2. सुलेख का अभ्यास।

निर्देश : बच्चों से कहिए, इस वाक्य को दो बार लिखो।

हम मेले गए थे।

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## पाठ ग्यारह

### अभ्यास 1

उद्देश्य : इ, ई की मात्राओं का ज्ञान।
निर्देश : बच्चों से कहिए, बिंदुओं को मिलाकर शब्द पूरा करो। अब इन शब्दों को पढ़ो। चित्र देखकर उनके नाम लिखो।

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| मिल | दिन | पिला | गिलास |
| मीरा | दीप | पीला | गीला |

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### अभ्यास 2

उद्देश्य : लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, वर्ण के लिखने के क्रम को समझो और वर्ण को तीन बार लिखो।

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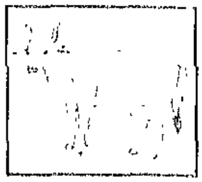
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## अभ्यास 3

उद्देश्य : 1. वर्ण–ज्ञान। ट और य की ध्वनि और आकृति से परिचय। 2. लिखने का अभ्यास।

निर्देश : बच्चों से कहिए, ट के नीचे बने चित्रों के नाम बताओ। खाली जगह में वह वर्ण लिखो जिससे चित्र का नाम पूरा होता है। इसी तरह य के लिए करो।

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|  | ...... हनी |  | गा ...... |
|  | ...... मा ...... र |  | चा ...... |

## अभ्यास 4

उद्देश्य : रचनात्मक अभिव्यक्ति का विकास।

निर्देश : बच्चों से कहिए, चित्र बनाओ।

टमाटर

गिलास

दीया

टोकरी

पाठ बारह

# आओ खाना खाओ

उद्देश्य : 1. कहानी के अनुसार अप्रासंगिक बात का पता लगाना।
2. वाक्यों को पढ़ने का अभ्यास।
निर्देश : बच्चों से कहिए, पहले चार वाक्यों को पढ़ो। बताओ, इनमें से कौन सा वाक्य इस कहानी में नहीं आया। उसके नीचे रेखा खींचो। इसी तरह दूसरा अभ्यास करो।

अभ्यास 1

1. सब मिलकर खाना खाओ।
मीरा को साथ लाओ।
मदन आओ।
अब बाजा बजाओ।

2. आओ, खाना खाओ।
यह लो, पानी का गिलास।
अब सब केला खाओ।
खाना चबा–चबाकर खाओ।

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उद्देश्य : वाक्य लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, इस वाक्य को लिखो।

अभ्यास 2

मटर की टोकरी लाओ।

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# अभ्यास 3



किताब से मत खेलो।
मीरा, बाजा बजाओ।
कमला, मेरे घर चल।



मिलकर खाना खाओ।
मेरी माला लो।
लो, पानी का गिलास।



केलेवाले से आम लो।
मदन, कमला, केले लो।
पिताजी, बाजा लो।

उद्देश्य : चित्र संकेत द्वारा संबंधित वाक्य पहचानना।
निर्देश : बच्चों से कहिए, पहला चित्र देखो। उसके सामने लिखे वाक्य पढ़ो। अब वह वाक्य ढूँढ़ो जिसके बारे में यह चित्र है। फिर चित्र से उस वाक्य तक रेखा खींचो। इसी तरह अन्य अभ्यास करो।

## पाठ तेरह

### अभ्यास 1

उद्देश्य : वर्ण लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, बिंदुओं को मिलाकर वर्ण पूरा करो। इसे तीन बार लिखो।

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पु पु ............................................................

### अभ्यास 2

उद्देश्य : चित्र द्वारा शब्द-ज्ञान बढ़ाना।
निर्देश : बच्चों से कहिए, चित्रों के नाम बताओ। अब चित्रों के सामने उनके नाम लिखो।

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## अभ्यास 3

उद्देश्य : इ, ई तथा उनकी मात्राओं का अभ्यास कराना।
निर्देश : पहली पंक्ति (ऊपर से नीचे) के शब्दों को पढ़ो। अब दूसरी पंक्ति पढ़ो और इनमें अंतर मालूम करो। इन शब्दों को खाली जगह में लिखो।

| | | | |
|---|---|---|---|
| इन | ईख | .................... | .................... |
| | | .................... | .................... |
| खिल | खील | .................... | .................... |
| | | .................... | .................... |
| दिया | दीया | .................... | .................... |
| | | .................... | .................... |
| बिन | बीन | .................... | .................... |
| | | .................... | .................... |
| पिला | पीला | .................... | .................... |

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## अभ्यास 4

उद्देश्य : 1. सीखी हुई मात्राओं का व्यंजनों के साथ अभ्यास।
2. उच्चारण तथा लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, ऊपर की पंक्ति को दो बार पढ़ो। अब नीचे लिखे वर्णों को उसी प्रकार लिखो। (शिक्षक बालकों की सहायता करें)। अब चारों पंक्तियों को पढ़ो।

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पाठ चौदह

# गाय आ गई

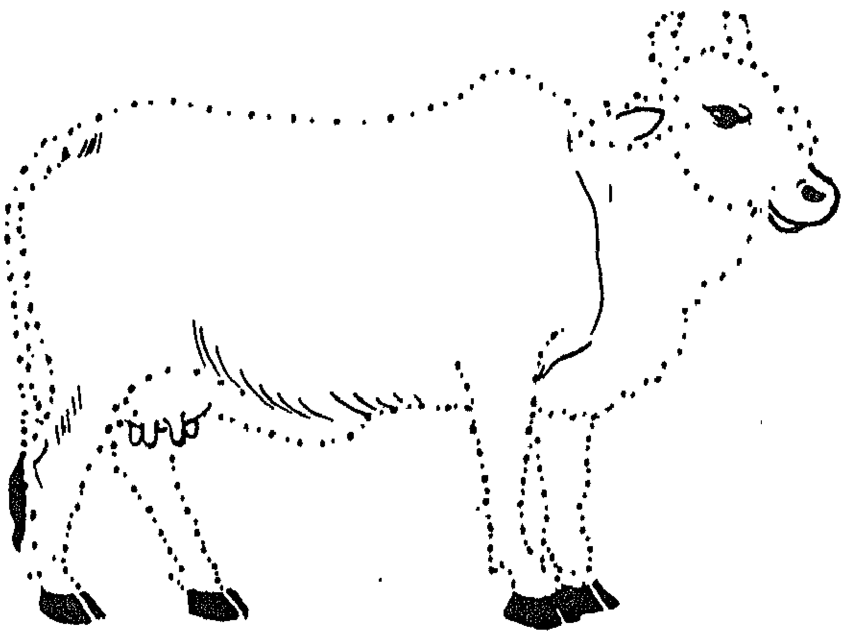
## अभ्यास 1

उद्देश्य : सही शब्द चुनकर वाक्य पूरा कराना।
निर्देश : बच्चों से कहिए, दाईं ओर लिखे शब्दों में से सही शब्द चुनकर वाक्य की खाली जगह में लिखो।

| | |
|---|---|
| हमारी गाय .................. लाए थे। | मदन |
| ............................................................ | पिताजी |
| गाय ने .................. खाई। | घास |
| ............................................................ | पानी |
| गाय .................. से पानी पिएगी। | बालटी |
| ............................................................ | टोकरी |

## अभ्यास 2

उद्देश्य : 1. गति – नियंत्रण की कुशलता का विकास।
2. रचनात्मक अभिव्यक्ति का विकास।
निर्देश : बच्चों से कहिए, बिंदुओं को मिलाकर चित्र पूरा करो। अब इसमें रंग भरो।



## अभ्यास 3

उद्देश्य : कहानी के अनुसार अप्रासंगिक बात का पता लगाना।
निर्देश : बच्चों से कहिए, इन वाक्यों को पढ़ो। जो वाक्य इस कहानी में नहीं आया है, उसके नीचे रेखा खींचो।

गाय घर आ गई।
गाय के पास चल।
यह गाय चाचाजी लाए थे।
पिता जी गाय ले आए।

गाय पानी पिएगी।
गाय को रोटी खिला।
उसके लिए घास ला।
गाय के आगे घास डाल।

## अभ्यास 4

उद्देश्य : उ और उ की मात्रा ( ु ) का ज्ञान।
निर्देश : बच्चों से कहिए, उ और पु के सामने खाली जगह में उ और पु लिखो। नीचे लिखे शब्दों को पढ़ो और उनके सामने खाली जगह में उन्हें लिखो। चित्रों के सामने खाली जगह में उनके नाम लिखो।

उ ...... ...... पु ...... ......

उजाला .................... .................... पुल .................... ....................

उपला .................... .................... पुराना .................... ....................

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# पाठ पंद्रह

## अभ्यास 1

> उद्देश्य : 1. शब्दों की आकृतियों में विभेदीकरण।
> 2. शब्द को पढ़ने का अभ्यास।
> निर्देश : बच्चों से कहिए, प्रत्येक पंक्ति में पहले बाईं ओर के शब्द को पढ़ो। फिर उसे दाईं ओर के शब्दों में से ढूँढ़कर उसके नीचे रेखा खींचो।

| | | | |
|---|---|---|---|
| चूहा | चाकू | चूहा | जूता |
| सड़क | सहेली | सड़क | सरकस |
| धागा | धोबी | गधा | धागा |
| शाम | शाम | शाल | साथी |
| ऊपर | उपला | ऊपर | ऊन |

## अभ्यास 2

> उद्देश्य : 1. उ, ऊ तथा उनकी मात्राओं का अभ्यास।
> 2. ध्वनियों में अंतर सिखाना।
> निर्देश : बच्चों से कहिए, पहली पंक्ति (ऊपर से नीचे) के शब्दों और वर्णों, को पढ़ो। अब इनमें अंतर मालूम करो। फिर इनको खाली जगह में लिखो। फिर नीचे के शब्द खाली जगह में लिखो।

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|---|---|
| उपला | ऊन |
| उसका | ऊपर |
| उ .................... .................... | ऊ .................... .................... |
| पुल .................... .................... | पूजा .................... .................... |
| पु .................... .................... | पू .................... .................... |

गुड़िया धूल जूता दुकान

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## अभ्यास 3

उद्देश्य : सीखे हुए वर्णों की सहायता से शब्द बनाओ।
निर्देश : बच्चों से कहिए, ऊपर लिखे वर्णों को पढ़ो। इनमें से सही वर्ण छाँटकर नीचे खाली जगहों में लिखकर शब्द बनाओ।

| | | | | |
|---|---|---|---|---|
| हा | ध | ठो | न | ड़ |
| श | य | ख | ड | ल |

दू .................. ऊ .................. उ ..................

गा .................. चू .................. ना ..................

खरगो .................. पे .................. फ ..................

## अभ्यास 4

उद्देश्य : लिखने का अभ्यास।
निर्देश : इन वर्णों को लिखो।

उ ऊ ऊ .................. .................. ..................
.................. .................. ..................

ध ध ध .................. .................. ..................
.................. .................. ..................

ड ड़ ड़ .................. .................. ..................
.................. .................. ..................

श श श .................. .................. ..................
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## अभ्यास 5

उद्देश्य : चित्रों की सहायता से शब्द लिखना।
निर्देश : बच्चों से कहिए, चित्र देखो। चित्र का नाम उसके सामने लिखो।

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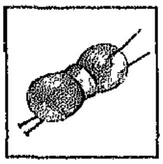
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## अभ्यास 6

उद्देश्य : मिलती–जुलती ध्वनियों के उच्चारण में अंतर सिखाना।
निर्देश : बच्चों से कहिए, ऊपर लिखे वर्णों को पढ़ो। नीचे खाली जगह में स और श लिखो। अब इन शब्दों को पढ़ो।

| स | श |
|---|---|
| ........ ड़क | ........ हर |
| ........................ | ........................ |
| घा ........ | रे ........ म |
| ........................ | ........................ |
| क ........ रत | खरगो ........ |
| ........................ | ........................ |

पाठ सोलह

# कमला की गुड़िया

उद्देश्य : सही शब्द चुनकर वाक्य पूरा कराना।
निर्देश : बच्चों से कहिए, वाक्य की खाली जगह में सामने के शब्दों में से सही शब्द चुनकर लिखो।

## अभ्यास 1

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| कमला के पास .................... थी। | कपड़ा<br>गुड़िया |
| कमला ने गुड़िया को .............. पहनाई। | तलवार<br>सलवार |
| गुड़िया .................... बन गई। | दुलहन<br>लड़की |
| कमला ने गुड़िया को ........... लपेटी। | कुरता<br>शाल |

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उद्देश्य : रचनात्मक अभिव्यक्ति का विकास।
निर्देश : गुड़िया का चित्र बनाओ। चित्र के नीचे अपनी गुड़िया का नाम लिखो।

## अभ्यास 2

गुड़िया बनाओ

# पाठ सत्रह

## अभ्यास 1

उद्देश्य : 'ए', 'ऐ' की ध्वनियों तथा मात्राओं से परिचित कराना।
निर्देश : बच्चों से कहिए, पहली पंक्ति (ऊपर से नीचे) के शब्दों और वर्णों को पढ़ो। फिर दूसरी पंक्ति के शब्दों और वर्णों को पढ़ो। ध्वनि तथा आकृति में अंतर स्पष्ट कीजिए।

| | |
|---|---|
| एक | ऐनक |
| एड़ी | ऐसा |
| ए | ऐ |
| मेला | मैला |
| मे | मै |
| बेल | बैल |
| बे | बै |

## अभ्यास 2

उद्देश्य : लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, इन वर्णों और शब्दों को लिखो।

भ भ ................ ................ ................

................ ................ ................

झ झ ................ ................ ................

................ ................ ................

| गोभी | भाई | झाड़ी | झाड़ू |
|---|---|---|---|
| ................ | ................ | ................ | ................ |
| ................ | ................ | ................ | ................ |

## अभ्यास 3

उद्देश्य : 1. शब्दों की आकृतियों में विभेदीकरण।
2. शब्द को पढ़ने का अभ्यास।
निर्देश : बच्चों से कहिए, प्रत्येक पंक्ति में पहले बाईं ओर के शब्द को पढ़ो। फिर उसे दाईं ओर के शब्दों में से ढूँढकर उसके नीचे रेखा खींचो।

| | | | |
|---|---|---|---|
| पैर | पैसा | बैल | पैर |
| झूला | झूला | झूलना | झूलो |
| ऐनक | ऐसा | ऐनक | सेना |
| भालू | आलू | भूसा | भालू |
| चूहा | चूहा | जूता | चाकू |

## अभ्यास 4

उद्देश्य : रचनात्मक अभिव्यक्ति का विकास।
निर्देश : बच्चों से कहिए, चित्र बनाकर उनमें रंग भरो।

थैला

ऐनक

पेड़

तराजू

## पाठ अठारह

# झूला झूलो

### अभ्यास 1

उद्देश्य : 1. कहानी का प्रत्यास्मरण। 2. पठन–अभ्यास।
निर्देश : बच्चों से कहिए, इन वाक्यों को एक–एक कर के पढ़ो और सोचो कहानी में यह बात हुई है या नहीं। वाक्यों के सामने ✓ या × का निशान लगाओ। (बच्चे पुस्तक की मदद ले सकते हैं)।

— मदन के घर के पास नीम का एक पेड़ था।
— रहीम के पिता जी ने झूला डाला।
— कमला सलमा के घर गई।
— मदन ने कमला को झुलाया।
— मीरा के साथ सलमा ने गाना गाया।

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### अभ्यास 2

उद्देश्य : सुलेख।
निर्देश : बच्चों से कहिए, इस वाक्य को पढ़ो और नीचे की खाली जगह में लिखो।

सब मिलकर झूला झूलो।

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## अभ्यास 3

उद्देश्य : सही शब्द चुनकर वाक्य पूरा कराना।
निर्देश : बच्चों से कहिए, वाक्य की खाली जगह में सामने के शब्दों में से सही शब्द चुनकर लिखो।

| | |
|---|---|
| घर के आगे नीम का ............ था। | घर |
| सब ................ झूलना चाहते थे। | पेड़ |
| पिताजी ने पेड़ पर झूला ............ । | गाया |
| कमला, सलमा के ............ गई। | झूला |
| कमला ने गाना ................ । | डाला |

## अभ्यास 4

उद्देश्य : रचनात्मक अभिव्यक्ति का विकास।
निर्देश : बच्चों से कहिए, झूले का चित्र बनाओ।

झूला

# पाठ उन्नीस

## अभ्यास 1

उद्देश्य : औ तथा उसकी मात्रा से परिचय।
निर्देश : दोनों पंक्तियों (ऊपर से नीचे) के शब्दों और वर्णों को पढ़ो और सामने की खाली जगह में लिखो।

| | |
|---|---|
| औरत ………… | चौकी ………… |
| और ………… | चौड़ा ………… |
| औ ………… | चौ ………… |
| लौकी ………… | पौधा ………… |
| लौ ………… | पौ ………… |

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## अभ्यास 2

उद्देश्य : लिखने का अभ्यास।
निर्देश : इन वर्णों को लिखो।

प फ फ ………… ………… …………

छ छ ………… ………… …………

## अभ्यास 3

| | | | | |
|---|---|---|---|---|
| फ | फल | फली | सफल | फन |
| फ़ | साफ़ | माफ़ | फ़सल | बरफ़ |

उद्देश्य : 1. फ और फ़ के उच्चारण में अंतर करना।
2. रचनात्मक अभिव्यक्ति का विकास।
निर्देश : बच्चों से कहिए, शब्दों को पढ़ो और फलों का चित्र बनाओ।

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## अभ्यास 4

| | | |
|---|---|---|
| पौधा | कौआ | छोटा |
| खोलो | मोर | मौसी |

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उद्देश्य : ओ तथा औ की मात्रा पहचानना।
निर्देश : बच्चों से कहिए, इन शब्दों को पढ़ो। इनमें से ओ की मात्रा वाले शब्द पहली पंक्ति में तथा औ की मात्रा वाले शब्द दूसरी पंक्ति में लिखो।

## पाठ बीस

# खिलौनेवाला

### अभ्यास 1

– खिलौनेवाले के पास भालू है।

– बड़े हाथी के पीछे गाय है।

– खिलौनेवाले ने गुड़िया की चाबी घुमाई।

– मदन और कमला घर से दौड़े आए।

– गुड़िया गाना गाने लगी।

– मीरा ने डुगडुगी बजाई।

उद्देश्य : 1. अप्रासंगिक बात का पता लगाना।
2. पढ़ने का अभ्यास।
निर्देश : बच्चों से कहिए, इन वाक्यों को पढ़ो। कहानी के अनुसार जो वाक्य ठीक है उन पर ✓ और जो गलत है उन पर × का निशान लगाओ।

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### अभ्यास 2

खिलौनेवाले के पास कौन–कौन से खिलौने थे?

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उद्देश्य : 1. प्रत्यास्मरण। 2. लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, इस प्रश्न का उत्तर नीचे की खाली जगह में लिखो।

## अभ्यास 3

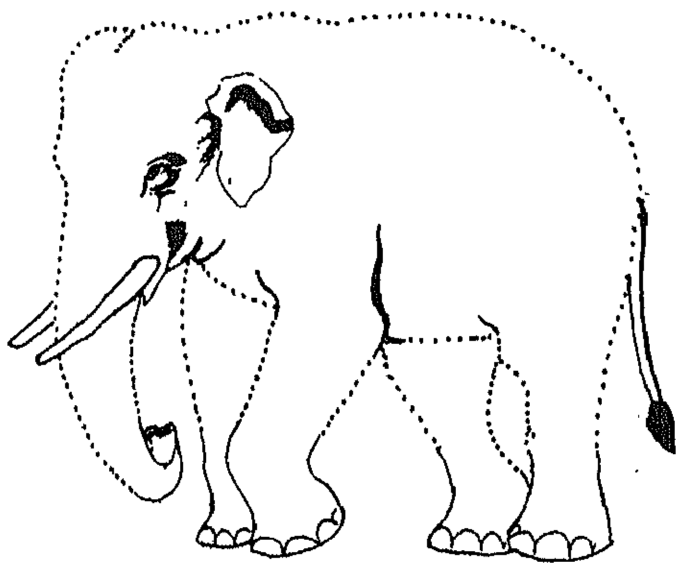
उद्देश्य : प्रसंग–संकेत से शब्द पहचानकर लिखना।
निर्देश : बच्चों से कहिए, दाईं ओर लिखे शब्दों में से सही शब्द ढूँढकर एक–एक वाक्य पूरा करो।

| | |
|---|---|
| खिलौनेवाले ने ............ बजाई। | गुड़िया |
| रहीम ने बड़ा ............ लिया। | जेब |
| मदन ने ............ से पैसे निकाले। | डुगडुगी |
| देखो, यह ............ नाचती है। | खिलौने |
| सभी ............ लेकर खुश थे। | हाथी |

## अभ्यास 4

उद्देश्य : गति नियंत्रण की कुशलता का विकास।
निर्देश : बच्चों से कहिए, बिंदुओं को मिलाकर चित्र पूरा करो। अब इसमें रंग भरो।

हाथी



# पाठ इक्कीस

## अभ्यास 1

उद्देश्य : ड, ड़ और ढ, ढ़ की आकृतियों की पहचान।
निर्देश : बच्चों से कहिए, बाईं ओर लिखे शब्द को पढ़ो। अब दाईं ओर के शब्द को पढ़ो। अब दाईं ओर लिखे शब्दों में से उस शब्द को चुनकर उसके नीचे रेखा खींचो।

| | | | |
|---|---|---|---|
| ढकना | ढालना | डालना | ढकना |
| सीढ़ी | सीढ़ी | साड़ी | सीटी |
| गुड़िया | चिड़िया | गुड़िया | पुड़िया |
| थोड़ा | घोड़ा | पढ़ो | थोड़ा |
| चढ़ना | चढ़ना | पड़ना | पढ़ना |
| डाक | ढाक | डाक | डाल |

## अभ्यास 2

उद्देश्य : 1. ढ और ढ़ के उच्चारण का अभ्यास।
2. लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, पहली पंक्ति ( ऊपर से नीचे ) पढ़ो। अब दूसरी पंक्ति पढ़ो। खाली जगह में ढ और ढ़ लिखो और फिर वाक्य पढ़ो।

| | |
|---|---|
| ढपली | पढ़ |
| ढकना | चढ़ |
| ढ | ढ़ |

मदन, यह किताब प........।

........ोल बज रहा है।

सी........ी से ऊपर चढ़ो।

ढोलक बजी ढम ........म।

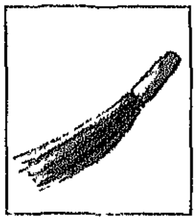
## अभ्यास 3

उद्देश्य : चित्र संकेत द्वारा शब्द लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, चित्रों के सामने उनके नाम लिखो।



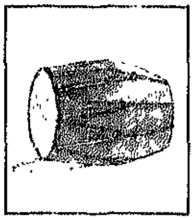
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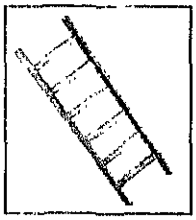
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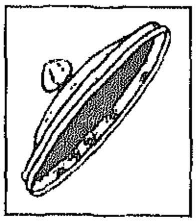
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## अभ्यास 4

उद्देश्य : 1. पठन अभ्यास।
2. रचनात्मक अभिव्यक्ति का अभ्यास।
निर्देश : बच्चों से कहिए, इन शब्दों को पढ़ो। इनमें से किसी एक का चित्र बनाओ।

**पंखा पंख बंदर कंघा**

## पाठ बाईस

# मदन घूमने गया

उद्देश्य : कहानी का प्रत्यास्मरण।
निर्देश : बच्चों से कहिए, इन वाक्यों को एक–एक करके पढ़ो। बताओ, यह किसने कहा। वाक्य से उसके नाम तक रेखा खींचो।

### अभ्यास 1

| | |
|---|---|
| मदन, बंदर को केला दो। | माताजी |
| अहा, कितने सुंदर लाल फूल ! | पिताजी |
| इनसे रंग बनाना और होली खेलना। | कमला |

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उद्देश्य : विलोम शब्दों द्वारा शब्द–ज्ञान बढ़ाना।
निर्देश : बच्चों से कहिए, ऊपर की पंक्ति पढ़ो। खाली जगह में शब्द के उलटे अर्थवाला शब्द लिखो।

### अभ्यास 2

| | | | |
|---|---|---|---|
| नीचे | ऊपर | दूर | ................ |
| आगे | ................ | दिन | ................ |
| छोटा | ................ | मोटा | ................ |

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उद्देश्य : अनुस्वार के चिह्न पढ़ने तथा लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, इन शब्दों को पढ़ो और खाली जगह में लिखो।

### अभ्यास 3

अंगूर पंख डंडा खंभा

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झंडा जंगल इंजन बंदर

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# पाठ तेईस

## अभ्यास 1

उद्देश्य : ठ, ष की पहचान तथा लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, वर्ण के नीचे लिखे शब्दों को पढ़ो। खाली जगह में इन वर्णों को लिखो।

| ठ | ष |
|---|---|
| आठ | धनुष |
| पीठ | उषा |
| गाँठ | सुषमा |

ठ .................. .................. ..................

.................. .................. ..................

ष .................. .................. ..................

.................. .................. ..................

## अभ्यास 2

उद्देश्य : ट और ठ ध्वनियों में अंतर स्पष्ट करना।
निर्देश : बच्चों से कहिए, ऊपर लिखे वर्णों से नीचे के खाली स्थान भरो। अब इन शब्दों को पढ़ो।

| ट | ठ |
|---|---|
| .......माटर | आ....... |
| .................. | .................. |
| म.......र | पा....... |
| .................. | .................. |
| .......हनी | उ.......ना |
| .................. | .................. |

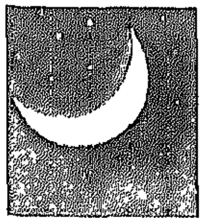
## अभ्यारा 3

उद्देश्य : अनुस्वार ' ं' और अनुनासिक ' ँ' ध्वनियों में अंतर स्पष्ट करना।
निर्देश : बच्चों से कहिए, इन चित्रों को देखो। इनके नाम सामने की खाली जगह में लिखो। अब इन्हें पढ़ो।



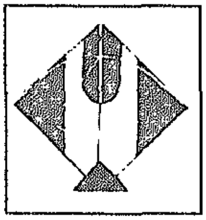
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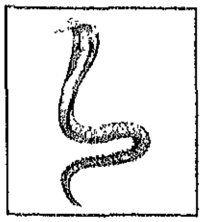
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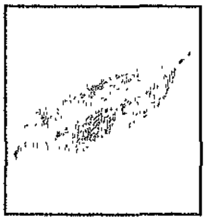
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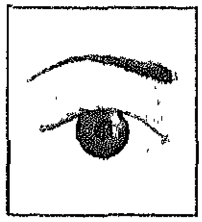
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## अभ्यास 4

उद्देश्य : सुलेख।
निर्देश : बच्चों से कहिए, इस वाक्य को नीचे खाली पंक्तियों में लिखो।

# उषा ने पाँच पाठ पढ़े।

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## पाठ चौबीस

# आँखमिचौनी

उद्देश्य : 1. कहानी के घटनाक्रम को समझना।
2. वाक्यों को पढ़ने का अभ्यास।
निर्देश : बच्चों से कहिए, पहले इन वाक्यों को पढ़ो। सोचो, कहानी में पहले क्या हुआ, फिर क्या हुआ और बाद में क्या हुआ। फिर उसी क्रम में वाक्यों की दाईं ओर खाली जगह में 1,2,3 आदि लिखो।

### अभ्यास 1

– सलमा बोली – चलो, अब आँखमिचौनी खेलें।

– मदन उनको ढूँढ़ने लगा।

– आँखमिचौनी का खेल होने लगा।

– मदन ने परदे के पीछे देखा।

– मदन बोला – ढूँढ़ लिया।

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उद्देश्य : शब्द–ज्ञान बढ़ाना। (विलोम)
निर्देश : बच्चों से कहिए, इन शब्दों के उलटे अर्थवाले शब्द लिखो। अब वाक्य पूरे करो।

### अभ्यास 2

| | |
|---|---|
| दूर पास | ऊपर .................... |
| भीतर .................... | उठना .................... |
| यहाँ .................... | हँसना .................... |

मेरा घर उषा के घर के .................... है।

हाकी घर के .................... खेलो।

## अभ्यास 3

उद्देश्य : शब्द–ज्ञान बढ़ाना।
निर्देश : बच्चों से कहिए, खेलों के नाम पढ़ो। सोचो, कौन से खेल घर के भीतर खेले जाते हैं। उनके नाम से घर के चित्र तक रेखा खींचो। इसी तरह घर के बाहर खेले जाने वाले खेलों से पेड़ के चित्र तक रेखा खींचो।

**आँखमिचौनी**

**पतंग उड़ाना**

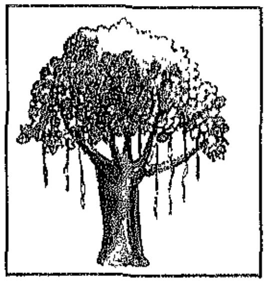
**गुड़िया का खेल**

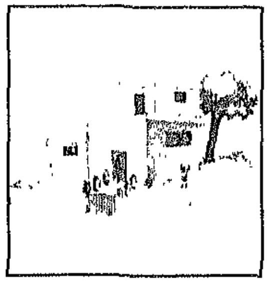
**गेंद**

**हाकी**

**लूडो**

**दौड़ लगाना**





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## अभ्यास 4

उद्देश्य : सुलेख।
निर्देश : बच्चों से कहिए, इस वाक्य को नीचे खाली पंक्तियों में लिखो।

**आओ, सब आँखमिचौनी खेलें।**

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## पाठ पच्चीस

# दशहरे का मेला

उद्देश्य : कहानी का प्रत्यास्मरण।
निर्देश : बच्चों से कहिए, इन वाक्यों को एक–एक करके पढ़ें और बताओ, कहानी में यह बात हुई है या नहीं। यदि हुई है तो उसके सामने हाँ लिखो। यदि नहीं हुई तो उसके सामने लिखो नहीं।

### अभ्यास 1

रक्षा ने श्रीराम का चित्र खरीदा। [ ]

मदन ने किताब खरीदी। [ ]

ज्ञान के हाथ में धनुष–बाण था। [ ]

रावण के पुतले में आग लग गई। [ ]

पिता जी ने बालकों को फल ले दिए। [ ]

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उद्देश्य : संयुक्ताक्षर लिखने का अभ्यास कराना।
निर्देश : बच्चों से कहिए, इन्हें लिखने के क्रम को समझो और तीन-तीन बार लिखो।

### अभ्यास 2

त्र त्र त्र त्र ………… ………… ………… …………

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क्ष क्ष क्ष क्ष ………… ………… ………… …………

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## अभ्यास 3

उद्देश्य : ण, क्ष, त्र, ज्ञ, श्र के पढ़ने तथा लिखने का अभ्यास कराना।

निर्देश : बच्चों से कहिए, ऊपर लिखे वर्णों को पढ़ो। नीचे की खाली जगह में इन वर्णों को लिखकर, शब्दों को पढ़ो। (शिक्षक इनके उच्चारण तथा आकृतियों की ओर विशेष ध्यान दें)।

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|---|---|---|---|---|
| ण | क्ष | त्र | ज्ञ | श्र |
| बा...... | र......ा | मि...... | ......ान | ......ी |
| राव...... | क......ा | प...... | आ......ा | ......म |
| किर...... | प......ी | पु...... | य...... | ......ीमान |

## अभ्यास 4

उद्देश्य : रचनात्मक अभिव्यक्ति का विकास।

निर्देश : बच्चों से कहिए, धनुष तथा बाण के चित्र बनाओ।

चित्र बनाओ।

# पाठ छब्बीस

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उद्देश्य : वर्णमाला लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, वर्णमाला याद करके लिखो। (शिक्षक इस पृष्ठ पर बालकों से पूरी वर्णमाला लिखवाएँ)

उद्देश्य : मात्रा सहित वर्ण लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, ऊपर की पंक्ति की तरह नीचे लिखे वर्णों को मात्रा के साथ लिखो।

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पाठ सत्ताईस

# आओ बगीचा लगाएँ

## अभ्यास 1

उद्देश्य : घटनाक्रम को समझना।
निर्देश : बच्चों से कहिए, 'क' भाग के वाक्यों को पढ़ो। सोचो, पहले क्या हुआ। फिर क्या हुआ ? फिर खाली जगह में क्रम से 1,2,3 लिखो। इसी प्रकार नीचे का अभ्यास करो।

(क) – फिर मैदान में खूब पानी डाला।
– बच्चों ने क्यारियाँ बनाई।
– बच्चों ने खुरपी से ज़मीन खोदी।

(ख) – क्यारियों में बीज बोए।
– पौधों में फूल निकल आए।
– अंकुर निकल आए।

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## अभ्यास 2

उद्देश्य : संयुक्ताक्षर वाले शब्द लिखने का अभ्यास।
निर्देश : बच्चों से कहिए, इन शब्दों को खाली जगह में लिखो।

कक्षा .........................
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रक्षा .........................
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पत्र .........................
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मित्र .........................
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ज्ञान .........................
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यज्ञ .........................
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श्रीमान .........................
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श्रीमती .........................
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## अभ्यास 3

उद्देश्य : 1. शब्द–ज्ञान बढ़ाना।
2. शब्दों का सही प्रयोग सिखाना।
निर्देश : बच्चों से कहिए, ऊपर की पंक्तियों में लिखे शब्दों को पढ़ो। नीचे के वाक्य पढ़कर खाली जगह में सही शब्द भरो।

| | | |
|---|---|---|
| खुरपा | खुरपे | खुरपों से |
| पौधा | पौधे | पौधों में |
| खिलौना | खिलौने | खिलौनों को |

इन .................... फूल निकल आए।

सब बच्चे एक–एक .................... ले लो।

रंग–बिरंगे .................... बिक रहे थे।

रमा ने .................... से घास खोदी।

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## अभ्यास 4

उद्देश्य : रचनात्मक अभिव्यक्ति का विकास।
निर्देश : बच्चों से कहिए, फूलों की क्यारी का चित्र बनाओ।

चित्र बनाओ।

## पाठ अट्ठाईस

# चुनमुन

### अभ्यास 1

उद्देश्य : कहानी का प्रत्यास्मरण।
निर्देश : बच्चों से कहिए, इन प्रश्नों के उत्तर लिखो।

चुनमुन कौन था ?

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चुनमुन क्यों रो रहा था ?

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### अभ्यास 2

उद्देश्य : कहानी के पात्रों के बारे में प्रतिक्रिया जानना।
निर्देश : बच्चों से कहिए, बाईं ओर लिखे प्रश्नों को बारी–बारी से पढ़ो। दाईं ओर के शब्दों में से सही उत्तर ढूँढ़कर उस तक रेखा खींचो।

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|---|---|
| चुनमुन कैसा था ? | अच्छी |
| मुरगी माँ कैसी थी ? | भला |
| बगुला कैसा था ? | शरारती |

## अभ्यास 3

उद्देश्य : वाक्य निर्माण।
निर्देश : बच्चों से कहिए, बाईं ओर लिखे शब्दों के वाक्य बनाओ।

मटर हम मटर खाते हैं।

छोटा ..............................................................
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चोंच ..............................................................
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मित्र ..............................................................
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## अभ्यास 4

उद्देश्य : कविता का आनंद लेना।
निर्देश : सभी बच्चों से इस कविता को अभिनयात्मक ढंग से गाने को कहिए।

चुनमुन कहीं न जाना,
इधर–उधर मत खाना,
पर देख मटर के दाने,
वह लगा मजे से खाने।
जब मटर गले में अटकी,
तब समझी अपनी गलती।
चुनमुन रोया पछताया,
तब माँ ने गले लगाया।

पाठ उनतीस

# दो बकरियाँ

## अभ्यास 1

उद्देश्य : प्रसंग के अनुसार सही शब्द चुनना सिखाना।
निर्देश : बच्चों से कहिए, दाईं ओर दिए गए दोनों शब्दों में से सही शब्द चुनकर खाली जगह में लिखो।

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|---|---|
| घास ............ थी। | हरी / पीली |
| दोनों बकरियाँ ............ थीं। | अच्छी / बुरी |
| पुल बहुत ............ था। | चौड़ा / तंग |
| बकरी ने सिर ............ उठाया। | ऊपर / नीचे |

## अभ्यास 2

उद्देश्य : 1. कहानी का प्रत्यास्मरण। 2. पढ़ने का अभ्यास।
निर्देश : बच्चों से कहिए, इन वाक्यों को एक-एक करके पढ़ो और बताओ, कहानी में यह बात हुई है या नहीं। यदि हुई है तो उसके सामने 'हाँ' लिखो। यदि नहीं हुई तो उसके सामने लिखो – 'नहीं'।

नाले के किनारे हरी–हरी घास लगी थी। ☐

दोनों बकरियाँ घास चर रही थीं। ☐

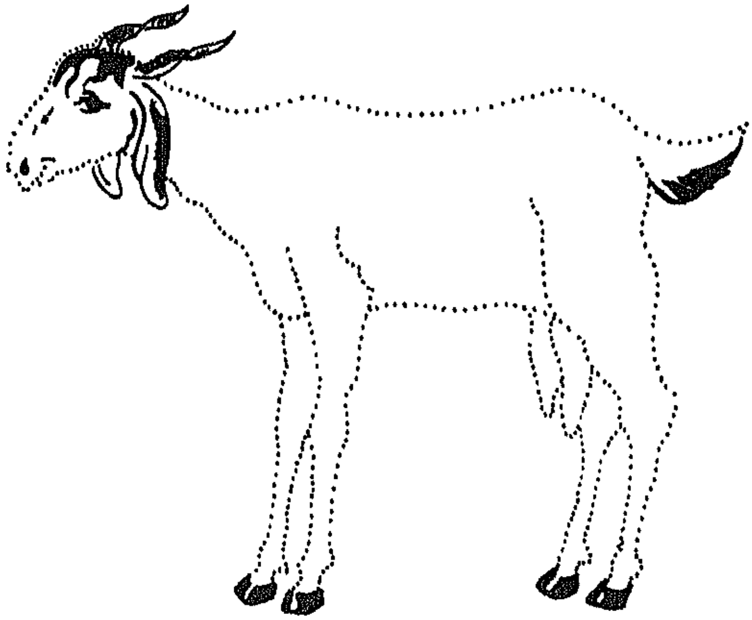
नाले पर बहुत बड़ा पुल बना था। ☐

एक बकरी पुल पर बैठ गई। ☐

दूसरी उसके ऊपर से निकल गई। ☐

दोनों बकरियाँ पुल पर लड़ने लगीं। ☐

## अभ्यास 3



उद्देश्य : रचनात्मक अभिव्यक्ति का विकास।
निर्देश : बच्चों से कहिए, बकरी के चित्र में रंग भरो और बकरी के बारे में कुछ वाक्य लिखो।

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# भारत का संविधान

## भाग 4अ

# नागरिकों के मूल कर्त्तव्य

अनुच्छेद 51अ

मूल कर्त्तव्य – भारत के प्रत्येक नागरिक का यह कर्त्तव्य होगा कि वह –

(क) संविधान का पालन करे और उसके आदर्शों, संस्थाओं, राष्ट्रध्वज और राष्ट्रगान का आदर करे,

(ख) स्वतंत्रता के लिए हमारे राष्ट्रीय आंदोलन को प्रेरित करने वाले उच्च आदर्शों को हृदय में संजोए रखे और उनका पालन करे,

(ग) भारत की संप्रभुता, एकता और अखंडता की रक्षा करे और उसे अक्षुण्ण बनाए रखे,

(घ) देश की रक्षा करे और आह्वान किए जाने पर राष्ट्र की सेवा करे,

(ङ) भारत के सभी लोगों में समरसता और समान भ्रातृत्व की भावना का निर्माण करे जो धर्म, भाषा और प्रदेश या वर्ग पर आधारित सभी भेदभावों से परे हो, ऐसी प्रथाओं का त्याग करे जो महिलाओं के सम्मान के विरुद्ध हों,

(च) हमारी सामासिक संस्कृति की गौरवशाली परंपरा का महत्त्व समझे और उसका परिरक्षण करे,

(छ) प्राकृतिक पर्यावरण की, जिसके अंतर्गत वन, झील, नदी और वन्य जीव हैं, रक्षा करे और उसका संवर्धन करे तथा प्राणिमात्र के प्रति दयाभाव रखे,

(ज) वैज्ञानिक दृष्टिकोण, मानववाद और ज्ञानार्जन तथा सुधार की भावना का विकास करे,

(झ) सार्वजनिक संपत्ति को सुरक्षित रखे और हिंसा से दूर रहे, और

(ञ) व्यक्तिगत और सामूहिक गतिविधियों के सभी क्षेत्रों में उत्कर्ष की ओर बढ़ने का सतत् प्रयास करे, जिससे राष्ट्र निरंतर बढ़ते हुए प्रयत्न और उपलब्धि की नई ऊंचाइयों को छू सके।

monthly periodical entitled *The Economic Digest*, which gives helpful economic data of current interest. Among the many helpful publications issued by the United States Department of Labor is one entitled *Labor Information Bulletin*, which contains timely articles of interest to teachers, coordinators, guidance counselors, and administrators

VIEWS OF THE CHAMBER OF COMMERCE OF THE UNITED STATES. The Chamber of Commerce of the United States has available for educational use a series of studies on current economic problems. Representative of the series are such studies as those concerning agriculture, business organization, distribution, and foreign trade Other studies deal with housing, industrial relations, natural resources, and social security laws. Studies concerned with combating subversive activities, public relief, transportation needs, and airports are also to be had.

THE NATIONAL INDUSTRIAL CONFERENCE BOARD The National Industrial Conference Board with headquarters in New York City is an independent institution specializing in scientific research, practical service, and public information In its field of service, business economics and business management have a prominent place Its chief function is "to assemble, analyze, interpret, and disseminate accurate, complete and useful information regarding economic conditions and management experience."[8]

OUR NATIONAL WEALTH In the United States the national wealth in 1938 was reported to be 309 billion dollars, which is approximately $2400 per capita. This wealth reached its highest point in 1929, when it amounted to $2987 per person. Approximately half the national wealth is in the form of land Stocks and bonds account for another 25 per cent. The remainder is made up of public utilities and other forms of wealth

The economic strength of our country is its power to produce Its resources include human assets, industries, plants,

[8] *The Economic Almanac for 1942*, The National Industrial Conference Board, New York City

equipment, raw materials, and the ability to organize for effective production. Vocational education in all its categories, from agriculture to trades and industries, is specifically organized to increase human skills, efficiency, and resourcefulness, and through them to contribute to our economic security and strength.[8]

The expenditures under the war effort are generally known to be huge. They have varied from year to year For 1943 proposed expenditures were estimated at 100 billion dollars. To show what 100 billion dollars means or can buy, let us make three comparisons (1) The total original value of all passenger automobiles in use in the United States when war was declared—about 32 million motor vehicles—was approximately 20 billion dollars (2) The total investment in the extensive railroad systems of the United States, including thousands of miles of track, stations, bridges, tunnels, and rolling stock, amounted to approximately 25 billion dollars. (3) One hundred billion dollars represents an expenditure of approximately $800 for every man, woman, and child in the United States, and an expenditure of $4000 for every family of five persons.

Economic Resources. The United States is still the richest nation on earth We have approximately 7 per cent of the world's population and 40 per cent of the world's wealth. We own about 70 per cent of the world's automobiles. Behind each wage earner in industry is an investment of $6500 in the form of factories, tools, and materials. Between 1890 and 1938 real wages increased 400 per cent For large portions of the population, particularly urban workers, the hours of work decreased approximately 30 per cent during that same period of 48 years

Twenty-four million bathtubs are in use in the United States. Twenty-five million of our homes are equipped with electricity. We have 50 per cent of the world's radios, 50 per cent of the world's telephones, and normally consume about 50 per cent of the world's rubber.

Wages Paid to Workers. To show a possible relationship between vocational education and earning power, let us

look at wages paid. The average wage rates paid in twenty cities were reported as follows:[9]

| *Occupation* | *Rate in dollars per hour* |
|---|---|
| Common labor | $ .796 |
| Skilled labor | |
| Bricklayers | 1 654 |
| Structural ironworkers | 1.612 |
| Carpenters | 1.392 |
| Average, 3 trades | 1 553 |

The *Monthly Labor Review* gives interesting figures to show that average earnings are determined not alone by skill but to some extent by the specific occupation. Thus, for sixteen occupations requiring 4 years or more of previous training, hourly wages of first-shift workers in an eastern airframe factory ranged from $1 252 for tool- and die-makers, grade A, to $.796 for service and flight inspectors, grade C. In twelve occupations calling for 3 or 4 years of experience the range was from $1.076 to $.834. The 2 to 3 year group varied from $1.116 to $.818. Jobs requiring 1 to 2 years of training paid from $ 952 to $.758. Those who could learn their jobs in 6 months to a year received $ 902 to $.742. The average wage of those who needed less than 6 months of previous training ranged from $.792 to $.614 [10]

COMPARISON OF INCOMES.[11] As a basis for further comparison we quote data covering approximately seventy-two cities, as reported by the United States Department of Commerce. For 1940 the average hourly wage rate for common labor in a total of thirteen groups of industries was $ 506; for manufacturing industries, $.498; for public utilities, $.477; and for building construction, $.601 per hour

It is probably conservative and approximately correct to estimate that skilled craftsmen receive about twice as much an hour as do those employed at common labor. This amounts to about 50 cents an hour, which, during a working

[9] *Engineering News-Record*, June 4, 1942, p. 51.

[10] *Monthly Labor Review*, July, 1942, p 20

[11] *Statistical Abstract of the United States, 1941*, United States Department of Commerce, United States Government Printing Office, 1942, p. 385.

week of 40 hours, equals $20. For a working year of 50 weeks the total would amount to $1000, exclusive of overtime, and without taking into account the fact that skilled workers are likely to be employed more hours per year than those unskilled

In the course of an occupational life expectancy of 30 years the difference in income between the average unskilled and the average skilled worker would be $30,000 If it is assumed that the higher-paid person will be able to invest a larger portion of his income profitably, this difference becomes even greater. The amount of time and money spent in becoming a skilled worker appears to be amply justified in terms of economic return.

OTHER VALUES. It is clear, of course, that wages are only one of many values Persons who learn to do difficult things well and those who render service of special value to society receive compensations other than monetary that mean much to them Social approval and service, after all, are interrelated. In general people want to reward socially useful effort in accordance with its worth. Wages are usually not so important as is often thought in attaining individual and family happiness. There are, however, many persons who would enjoy greater advantages if their earning power could be increased through some means such as vocational education.

COMPETITION IN DOMESTIC AND FOREIGN MARKETS. We are looking forward to reduced, rather than extended, hours of work per week and year There is also a hope that wages will be higher, not lower, in the years ahead. As far as can be seen at this time, the United States is likely to want to participate in foreign trade in the future as it has for generations in the past. The extensive natural resources at our disposal at home are a distinct advantage. It should not be overlooked, however, that American inventiveness gives us but a temporary advantage in competition with other countries where workers are paid lower wages and work longer hours, because our, as well as their, best power machines and tools may be used by them. Under such circumstances it becomes imperative for American workmen to have not only

a good general education but also superior specific and thorough vocational training.

It would appear that one of our chief hopes in maintaining high standards of living for all will depend upon factors that can be influenced by vocational education at all levels, including that of management. To compete successfully we shall need to extend vocational education downward as well as upward. It will be necessary to give serious attention to training persons efficiently for all occupations—unskilled, semi-skilled, skilled, professional, and managerial. The experience that we have had in the past proves that well-planned vocational education pays adequately both in terms of the deeper values of life and in financial reward.

We compete in foreign markets not as individuals but as a nation. The proper exchange of the goods and services we produce is therefore a national problem. It can be met best by having national standards, national participation, and cooperative effort all along the line from local, through state, to federal levels.

PUBLIC AND PRIVATE WORKS. The underlying concept in programs of public works is to combine idle men with idle resources for useful public construction. Rapid and extensive changes in employment conditions make it necessary to have in reserve carefully prepared plans that will assure employment for all capable of working.

In public works the matter of timing is important. It takes from two to four months to award contracts and to start work on large projects. This time is required for preparing plans and specifications, advertising, and receiving bids. Prior to these activities the feasibility, the relative need, and the legality of the proposed projects require study.

In addition to public works, federally aided projects and private works deserve careful study, for they too can be of much value in stabilizing employment and thus aiding social and economic security. The problem is not one of public versus private initiative, but rather of a proper balance between them.

GREAT NEED FOR SKILLED WORKERS. Skilled workers are needed to a much greater extent in this power, air, and

machine age than is generally believed. On the basis of a field study conducted in June, 1939, by the United States Department of Labor, Bureau of Labor Statistics, it was estimated that in the airframe industry 41.3 per cent of the workers were skilled, 46 6 per cent were semi-skilled, 9 9 per cent were unskilled, and 6.1 per cent were clerical workers and others

We might possibly get along with a smaller proportion of skilled workers than we need now if it were not for the speed and scope of technological change As it is, new tools, new materials, and new processes are constantly replacing others. It is indeed a competitive struggle in which the best-prepared men win Persons who have learned a skilled trade can adapt themselves more readily and gain full production more quickly on new jobs than those who do not have a broad trade background

Former President Theodore Roosevelt once wisely remarked, "Nine-tenths of wisdom is being wise in time."

REDUCTION OF LABOR TURNOVER. Labor turnover reports from approximately 8900 manufacturing establishments employing more than 4,400,000 workers showed 3 59 persons per hundred quitting their jobs during one month.[12] The prevailing opportunities for higher wages, transportation difficulties, and housing shortages no doubt account for some of this turnover The cost of labor turnover in factory employment has been estimated to vary from $50 to $200 a person In some instances it is lower; in others, higher. According to Sumner Schlichter of Harvard University, one street railway company estimated that it costs $370 43 to train each trainman who is in service one year or less.[13]

It is believed that vocational education is of value in reducing labor turnover since well-trained workers are usually retained longer and paid better than those not well-qualified for their jobs Since an appreciable cost is involved in breaking in a new man, it may be seen that vocational education may benefit both the worker and the employer by

[12] *Monthly Labor Review,* Vol 55, No. 1, July, 1942, p 157

[13] Sumner H Schlichter, *The Turnover of Factory Labor,* quoted by George E Myers in *Principles and Techniques of Vocational Guidance,* p. 70

keeping such overhead cost at a minimum. Top-notch mechanics are seldom out of work, and they can usually stay on the job as long as it lasts

ACHIEVEMENT OF HIGHER STANDARDS OF LIVING. There are fairly definite relationships between what a nation produces and how high its standards of living are. Farmers may not have large cash incomes, but they usually produce a considerable variety of food and eat well Vast natural resources raise standards of living. Vocational education does likewise because it conserves and makes available for effective use our most valuable resource—human beings. In the past the exploitation of great natural resources has aided us; in the future we shall have to rely to an increasing extent upon vocational education as a means of developing occupational knowledge, skills, and appreciations which will enable us to make the most of the physical resources at our command.

In our effort to raise standards of living, vocational education assumes more than local, or even state-wide, proportions. Here and there are areas where natural resources are declining and where further vocational education is not needed to keep failing industries in operation However, the young people in such areas must be trained for maximum usefulness, for our aim is full employment for all. Hemispherical, national, and state welfare demand that all young people be adequately prepared to take their part in helping to build for tomorrow. To such ends federal and state participation, guidance, and aid in adequate amounts are sound investments.

REDUCTION OF ACCIDENTS. In 1940 industrial accidents deprived the United States of the services of 18,100 workers. They also permanently impaired the productive power of 89,600 others and in addition disabled 1,782,000 workers for an average of 23 days each.[14]

It is common practice for vocational instructors to teach fundamental safety concepts and the specific practices that make for safety in the vocations they teach. The information

[14] W T. Cameron, Chief Safety Advisor, Division of Labor Standards, *Labor Information Bulletin*, March, 1942

secured in vocational classes about materials, tools, processes, and the operation, care, and use of power-driven machines is known to make workers safety conscious and to fit them to work safely. The habits and safety attitudes taught in vocational schools and classes have been direct factors in reducing occupational accidents—at least, that is the testimony of workers and the judgment of foremen, superintendents, and employers.

LONGER LIFE FOR MACHINES AND TOOLS Instruction in the proper use of machines, tools, and equipment, such as is given in vocational classes, helps to reduce wear and tear. Breaking in a new driver on an automobile may be hard on the machine Breaking in learners on vocational school equipment not only reduces wear on production machines in industry but also enables the latter machines to be operated more hours a day on production work. Longer life is given machines and tools through instruction that stresses proper lubrication, correct use, frequent checking of parts subjected to wear, timely reconditioning, and suitable care at all times.

Training in conditioning tools and equipment need not be limited to those owned by schools. In many parts of the United States students taking vocational agriculture bring in tools, plows, tractors, and other equipment to be repaired in school farm shops. Girls taking home economics are taught how to remodel or repair garments, furniture, and household appliances Men and boys in trade and industrial schools and classes likewise learn to repair, recondition, or remodel tools, machines, and equipment from a variety of sources.

FINDINGS OF THE REGENTS' INQUIRY.[15] An extensive educational survey of sixty-two representative high schools in New York State was made under the auspices of the Board of Regents of the State of New York.

Reporting upon one phase of this extensive investigation, Thomas L Norton found that·

1. There was less unemployment among the boy graduates of vocational schools than among those graduating

[15] The Regents' Inquiry series of reports were published by the McGraw-Hill Book Co , Inc , 1938

from the general high schools of the state. At the time the study was made, 11.5 per cent of those vocationally trained were out of work, as compared with 25.8 per cent of those who graduated from general high schools.

2 Wages received by vocational pupils were, on the average, consistently higher than those received by pupils from general high schools The difference in this respect was $3 87 per week in favor of those vocationally trained.

3 The employers reported that the graduates of vocational courses had better chances of advancement than those not so educated.

4. According to the findings the pupils who took vocational curriculums had, on the whole, better attitudes toward their jobs than those who lacked vocational education

Francis T. Spaulding reported that the pupils themselves indicated that the most common defect of the schools, as they saw it, was the lack of special training together with good general education.

TRENDS HAVING SOCIAL-ECONOMIC BEARING. Reports from state departments of education to the United States Office of Education show trends having social and economic significance [16]

In the realm of agricultural education a keener sense of need for thorough plans covering "the social, economic, and recreational activities of farm families," various cooperative programs, such as working together in land-use planning, helping rural families meet farming problems, and community canning activities, are representative

Other efforts are centered around encouraging students to develop suitable supervised farm projects, assisting agricultural graduates in establishing themselves in farming, and training out-of-school rural youth. Emphasis upon vocational agricultural instruction programs for local chapters of the Future Farmers of America continues to be applied by leaders of that splendid youth movement.

In the field of trade and industrial education state reports show a wide variety of trades and occupations in which training is given County and state trade schools are reported on

[16] *Education for Victory*, Vol 1, No 6, May 15, 1942

the increase Small tools, jigs, and fixtures for war production are being manufactured by vocational schools for other schools and for firms holding war contracts The more exacting standards of modern production are helping school authorities to realize the limitations of some of their older outmoded equipment.

In home economics special attention is being given to nutrition, health, and home nursing, housing problems, and the effective perpetuation of democratic ideals and high standards of family living. During the year 1941 approximately 33,000 boys received instruction in home economics subjects.

In distributive education attention is being given to specialized groups such as retail druggists, restaurant employees, and workers in meat and furniture stores. In this area of instruction as well as in others there are shortages of well-trained workers Leaders in the field are cooperating closely with trade associations.

There was an increase in one year of 31 per cent of persons enrolled in federally aided classes in public service occupations. The larger groups were for firemen, policemen, custodians, and public welfare workers.

Occupational information and guidance are appropriately receiving increased support. State and local guidance services, with the cooperation and help of the United States Office of Education, are rendering a variety of very practical and helpful services, such as starting organized guidance services in schools that were previously without them, developing guidance clinics, career centers, and experimental guidance centers To an increasing extent states are appointing state supervisors of occupational information and guidance.

## *FOR DISCUSSION*

1 Mention some of the evidences that go to prove wide-spread public interest in vocational education

2 What were the chief arguments favoring vocational education that were presented to the congressional Commission on Vocational Education in 1914? Are those arguments still valid?

3 Why is economic security a national problem?

4 Why are so many different agencies interested in postwar planning?

5 Explain the functions of the National Resources Planning Board

6. What are the chief advantages of planning for full employment for all in the years ahead?

7. Describe the organization and views of the Commission on Postwar Training and Adjustment of Teachers College, Columbia University.

8 Report upon the economic and social study material issued by (1) The National Association of Manufacturers; (2) The American Federation of Labor, (3) The Congress of Industrial Organizations; (4) The Chamber of Commerce of the United States, (5) The United States Department of Labor.

9. Discuss our national wealth and national expenditures.

10 In what does our economic strength lie?

11 Compare the wages and life incomes of unskilled workers with those of skilled workers.

12 Mention and evaluate some of the values other than wages obtained through occupational pursuits

13. Explain the relationships between vocational education and domestic and foreign competition

14 Mention the basic objectives of planning public and private works on a long-range basis

15 How is it that large numbers of skilled workers are needed in our machine and power age as well as in the earlier age of handicrafts?

16 What are some of the ways in which the cost of unnecessary labor turnover can be reduced?

17. Explain and illustrate how vocational education makes higher standards of living possible.

18. Cite five conclusions reached in the Regents' Inquiry that have bearings on vocational education

19. Mention several trends in your field of major interest which have social-economic bearing

20. How significant is vocational education to family welfare?

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# CHAPTER 5

## *Federal and State Laws Relating to Vocational Education*

### EARLY LEGISLATION

FEDERAL INTEREST IN EDUCATION. Federal interest in education is a matter of long standing. Swift and others have pointed out that the first provisions for federal grants in aid of education date back to the Ordinance of 1785.[1] This act was the forerunner of others which collectively resulted in grants totaling more than 100,000,000 acres of land to schools under public supervision and control [2]

In 1802 the federal government turned over to the newly created state of Ohio 700,000 acres of land Well known among other land grants are the Morrill Acts of 1862 and of 1890, respectively, by which land grants were given to aid in the establishment of colleges of agriculture and mechanic arts, popularly known as our land-grant colleges and universities.

Contrary to popular belief, it would appear that the framers of the Constitution thought of education as included in the "welfare" clause of the Constitution Dean William F. Russell's study of Madison's *Journal*, a document withheld from circulation until 1840, takes that point of view.[3] On the other hand, court decisions make it clear that education is a state responsibility in which the federal government and the local school districts have vital interest and in which they must share. The schools have been referred to as "the agency of society created to improve and perpetuate society." This task calls for cooperation at all levels—federal, state, and local

[1] Fletcher H. Swift, *History of Public Permanent School Funds*

[2] Paul R Mort, *Federal Support for Public Education*

[3] William F Russell, "Federal Financing of Education," *School and Society*, Vol 38, No. 937, August 19, 1933 See also Paul R Mort, *Federal Support for Public Education*, pp. 45-7

REASONS FOR FEDERAL AID TO SCHOOLS. Before entering into a discussion about specific federal legislation relating to vocational education in public schools, let us look into the reasons for federal aid to the states

1. *Importance to national welfare.* Federal aid to vocational education is widely advocated because such education is of tremendous importance to national welfare, in peace as well as in war. The huge task of conversion training from peace to war and back again must be done quickly and efficiently. Now that air and other forms of travel have vanquished distance, national security is no longer a state or regional matter but rather a national and hemispherical problem calling for national interest and responsibility.

In years of economic dislocation, vocational education must give retraining to thousands. When our nation is at war, millions must be trained for war production. When more food is needed, farmers are called upon to produce more than formerly. Wisely selected and timely vocational education may prevent unemployment or at least cushion its effects Federal aid is needed to make such training possible.

2. *Meeting emergency needs.* Federal aid is needed for capital outlay and operating expenses to meet such situations as these. (a) Thousands of families find it necessary to leave their homes to work in essential industries elsewhere. Adjustment training must be given in many cases. (b) Priorities and shortages of required materials may throw millions out of work. They must be fitted for other jobs. (c) New products must be turned out quickly. For this manufacture vocational training is needed (d) Critical labor shortages develop, forming "bottlenecks" in production Again vocational training is called for These are but a few instances to show how vocational education serves the nation Without federal aid the services required could not be given adequately in many states and local districts

3 *Help in equalizing opportunities.* Inequality in the ability to support general education, and vocational education as well, represents one of the major reasons for federal aid. Vocational education as a public school function is rela-

tively new. The costs involved in giving it are an increased burden to states already handicapped by inequalities in wealth, which are evident in such aspects as:

*a.* Differences in length of school term. The average length of the school term is considerably less in rural than in urban schools in the United States. It also varies among states The approximate range extends from 9½ months to 6½ months. At present there are seven states in which the average length of attendance is less than 6 months.

*b.* Differences in quality of service. By and large, education is a purchasable commodity. The school districts that offer the best wages and have excellent housing, equipment, and living conditions are able to attract superior teachers, supervisors, and administrators.

The state with greatest wealth per school child has a per capita taxpaying ability twelve times that of the poorest one. In terms of revenue collected, the difference is greater than 5 to 1. The average expenditures per year for operating schools range from $24.55 in one state to $134 13 in another.

*c.* Differences in literacy. It is estimated that there are 10,000,000 people in the United States who cannot read and write. In 1942 the state of New York, in spite of its fine school systems, had 1,000,000 illiterates, mostly of foreign birth. Utah has the fewest. Of the 10,000,000, 3,600,000 are totally illiterate. The ruling that persons entering the army must have fourth grade education or better barred 433,000 men in 1942. Later the ruling was changed. In some places in the South where illiteracy runs high among Negroes, practically every literate Negro eligible for military service was inducted, whereas the illiterate were not called until they could pass minimum qualifications In the United States there are at present more illiterates than college graduates.

*d.* Differences in housing. One need not travel far to note differences in school housing. The range runs from little red schoolhouses, "red from financial strangulation more than from red paint," to great modern buildings housing thousands under one roof. The value of school property per pupil shows a range from approximately $75 to $443. This differ-

ence does not take into full account variations in equipment for purposes of vocational education.

*e.* Differences in the number of migratory persons. Differences also exist in the number of migratory persons who need instruction Their number varies from time to time, but it runs into millions, currently about 4,000,000. About one third of these are children Many of the adults need training too. It is obviously difficult, in fact not feasible, for some states to meet the additional burden of providing even a minimum defensible program of instruction in either general or vocational education to these migratory workers without federal aid.

California is one of the most cosmopolitan states in the union, for some 2,500,000, or 57 per cent, of its American-born population first saw the light of day in other states. The percentage runs to 61 per cent in Nevada and 64 per cent in Wyoming Florida is another state having a large transient population.

*f.* Differences in the number of children per family. Inequalities in wealth per capita are accentuated by differences in the number of children per family. In rural districts, which are usually less well off financially than urban centers as regards taxable wealth, there are more children per family than in the cities. Likewise the educational opportunities among the Negroes in certain states are restricted, more than they would otherwise be, by the fact that they have more children per family than do American-born whites.

Rural people appear to live longer than those engaged in higher-pressured occupations in cities. Rural families have not only more children but also more older persons per 1000 of population than districts of greater taxable wealth. This represents another reason for federal aid to help equalize the inequalities caused thereby.

*g.* Differences in community training resources. The modern school, particularly the modern vocational school which serves adults as well as youth, draws much of its strength from the training resources available in the community outside the school buildings. Such resources vary greatly. Unfortunately the poorer districts more often than not are the ones that have more limited out-of-school train-

ing resources. This factor, too, must not be ignored in any extensive plan of equalization.

4. *Stimulation of state and local programs.* Federal legislation relating to vocational education of less than college grade was formulated with the express purpose of stimulating the states and local districts to expand their programs in accordance with current needs and probable future trends.[4] The extent to which the program has developed in response to various stimuli, among them federal legislation including financial aid, may be seen to good advantage in the graphs and tables published annually by the United States Office of Education under the title of *Digest of Annual Reports of State Boards for Vocational Education to the United States Office of Education.*

5. *Fostering higher standards.* The achievement of higher standards in education depends upon several factors, one of which is the pooled judgment of leaders. The program of vocational education under federal vocational education acts has benefited greatly from the cooperative relationship and the effort put forth by local, state, and federal personnel. From the time this federal legislation was conceived a policy of close cooperation between federal, state, and community leaders has been followed, especially when federal-state relationships, policies, standards, and practices were at stake.

For example, when the policy bulletin relating to the administration of vocational education came up for revision, as it did from time to time, a series of preliminary conferences was held in various states and regions. Subsequently representative chief state school officers, leaders in the different categories of vocational education, spokesmen for the American Vocational Association, members of the Federal Advisory Board for Vocational Education, and others were called together with the staff members of the United States Office of Education who are responsible for administering the program, to work out policies cooperatively.[5] After the

[4] For the sake of brevity, the term states will often be used as here to include Hawaii, Puerto Rico, Alaska, and the District of Columbia

[5] United States Office of Education, *Statement of Policies for the Administration of Vocational Education,* Vocational Education Bulletin No 1

copy was prepared it was scrutinized carefully by a representative reviewing committee. Later further refinements were made before the bulletin was released for publication The procedure followed in this case is typical of the way the Division of Vocational Education in the United States Office of Education works.

CONDITIONAL NATURE OF GRANTS-IN-AID. All the states, territories, and insular possessions are free to reject or accept the provisions of federal vocational education acts But if they accept them, they must assume the obligation of spending the funds granted in accordance with the provisions of the acts. Court rulings show that there is a strong tendency on the part of the courts to hold strictly to the federal laws and to discourage diversion or misuse of the funds [6]

That policy is exactly in line with the desire of those who framed the laws. The squandering, mismanagement, and loss of land grants made in the expectation of aiding education in America through earlier legislative acts served as a lesson to those who drafted the Smith-Hughes and George-Deen Acts.[7]

FEDERAL AND STATE REASONS. In its policy bulletin the Office of Education, together with other cooperating agencies, has set down four reasons for federal grants-in-aid and cooperation with the states.

> This cooperation of the States with the Federal Government is based upon four fundamental ideas (1) that vocational education being essential to the national welfare, it is a function of the National Government to stimulate the States to develop and maintain this service, (2) that Federal funds are required to adjust equitably among the States the burden of providing the service, (3) that since the Federal Government is vitally interested in the success of vocational education, it should, so to speak, secure a degree of participation in this work, and (4) that only by creating such a relationship between the central and the local governments can better and more uniform standards of educational efficiency be set up

[6] See Julia E Johnsen, *Federal Aid for Education*, p. 43

[7] See Fletcher H Swift, *Federal and State Policies in Public School Finance in the United States*, "Squandering the Heritage," Chapter III

MORT'S REASONS FOR FEDERAL AID.[8] Paul R. Mort lists three objectives of federal aid for education: "(1) assurance of a defensible foundation program in all communities in all states, without placing additional handicaps on local initiative; (2) equalization of the burden of supporting a defensible foundation program; and (3) rehabilitation of local initiative through tax reform"

THE SMITH-LEVER ACT.[9] While not, strictly speaking, federal legislation aiding vocational schools, the Agricultural Extension Act of 1914 or the Smith-Lever Act, as it is commonly called, is of interest to persons concerned with vocational education. The reasons are that the act has certain provisions similar to those incorporated in the Smith-Hughes Act and also, and perhaps more important, that relationships exist between workers under the Smith-Lever Act and those under the Smith-Hughes and George-Deen Acts.

The Smith-Lever Act provides that:

> . . . in order to aid in the diffusion among the people of the United States of useful and practical information relating to agriculture and home economics, and to encourage the application of the same, there may be inaugurated in connection with [land-grant colleges] . agricultural extension work which shall be carried on in cooperation with the United States Department of Agriculture

Section 2 of the act specifies that:

> . . . cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise; and this work shall be carried on in such a manner as may be mutually agreed upon by the Secretary of Agriculture and State agricultural college or colleges receiving the benefits of this Act.

Federal payments are made in equal semi-annual payments on the first day of January and July of each year. If any money is lost or misapplied the state must replace it.

[8] Paul R. Mort, Eugene S. Lawler, and Associates, *Principles and Methods of Distributing Federal Aid for Education*, p 19 (Public No 95, 63d Congress) (H R 7951) Approved, May 8, 1914

[9] See Elmer A. Lewis, *Laws Relating to Vocational Education and Agricultural Extension Work.*

SMITH-LEVER FUNDS The total funds, state and federal, spent under the Smith-Lever Act currently approximate $25,000,000. Of this amount somewhat more than half is contributed from federal sources Approximately $1,000,000 is appropriated annually by Congress for cooperative extension work in addition to the regular and supplemental Smith-Lever funds. This million-dollar appropriation is not matched by the states on a dollar-for-dollar basis, as is the main appropriation, but is a direct, unmatched appropriation so distributed as to correct some of the injustices of the method of apportionment specified in the act

Approximately 60 per cent of the funds is allotted to extension agents in the counties. About 20 per cent is spent in employing specialists, who in the main supplement the work of the county agents Another 10 per cent goes for the supervision of the county extension workers. About 5 per cent is allotted to the agricultural colleges for the administration of the act, and another 5 per cent, but no more, of each annual appropriation may be expended for the printing and distribution of publications.

A field force of approximately 5000 persons is employed to render the extension service. In addition to the service to adults an extensive program of 4-H club activities is sponsored. Field studies, farmers' institutes, visual instruction, radio addresses, and technical and practical service in all major areas of farming are made available. County agents give demonstrations and lectures on soil conservation and improvement, use of fertilizers, sprays, feeding, marketing, cooperatives, business management, rulings on production and a host of other topics.

HOME DEMONSTRATION AGENTS Very helpful, also, is the work done by home demonstration agents employed under the provisions of the Smith-Lever Act Home demonstration agents, as their name implies, give demonstrations, lectures, and use visual aids of various sorts. Their chief purpose is to improve rural life through better homemaking practices. In this work they have had outstanding success.

## THE SMITH-HUGHES ACT[10]

A MILESTONE OF PROGRESS. As stated in Chapter 10, the National Society for Vocational Education[11] was organized on November 16, 1906. State committees were organized in 1907, and the following year the Society sponsored a study of industrial education under public direction

In 1908 state societies affiliated with the National Society were formed, and by 1909 the membership exceeded 11,000 In 1910 the annual meeting was held in Boston. At that time Dr. David Snedden was State Commissioner of Education in Massachusetts and Dr. Charles A. Prosser was Deputy Commissioner

In 1912 Dr Prosser was made secretary of the National Society. He at once gave his attention to the campaign for federal aid for vocational education and took a leading part in the effort that culminated in the passage of the Smith-Hughes and later vocational education acts. Dr. Prosser was especially helpful in drafting the basic act and in assisting the states in preparing state legislation by which cooperation with the federal government was made possible.

President Woodrow Wilson appointed the Committee on National Aid to Vocational Education, created by act of Congress on January 20, 1914, to which previous reference has been made.[12] The findings of this committee helped to pave the way for the passage of the Smith-Hughes Act three years later.

PURPOSE OF THE SMITH-HUGHES ACT.[13] The preamble to the Smith-Hughes Act reads:

> An Act To provide for the promotion of vocational education, to provide for cooperation with the States in the promotion of such education in agriculture and the trades and industries, to provide for cooperation with the States in the preparation of teachers of vocational subjects, and to appropriate money and regulate its expenditure

[10] Public No 347, 64th Congress, S 703 Approved, February 23, 1917

[11] F Theodore Struck, *Foundations of Industrial Education,* Chapter 8

[12] *Ibid*, Chapter 5.

[13] In order to present the Smith-Hughes Act with fidelity we have drawn rather heavily upon the original wording of the act Wherever the term Federal Board for Vocational Education is used in the act, it refers to the current United States Commissioner of Education or the Office of Education

It will be noted that there are two key words in this introductory statement to the act: *promotion* and *cooperation.* Now that the act has been in effect for more than a quarter of a century, it can be said that throughout this time the federal administrative and professional staff, formerly the Federal Board for Vocational Education and currently the Vocational Division of the United States Office of Education, has zealously promoted vocational education on a distinctly cooperative basis with the states.

Section 1 of the act contains a concise statement of the chief purpose·

> *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* that there is hereby annually appropriated, out of any money in the Treasury not otherwise appropriated, the sums provided in sections two, three, and four of this Act, to be paid to the respective States for the purpose of cooperating with the States in paying the salaries of teachers, supervisors, and directors of agricultural subjects, teachers of trade, home economics, and industrial subjects, and in the preparation of teachers of agriculture, trade, industrial, and home economics subjects, and the sum provided for in section seven for the use of the Federal Board for Vocational Education for the administration of this Act and for the purpose of making studies, investigations, and reports to aid in the organization and conduct of vocational education, which sums shall be expended as herein after provided

AGRICULTURAL EDUCATION For the purpose of implementing cooperation Section 2 of the act made certain funds available For the fiscal year ending June 30, 1926, and annually thereafter the sum of $3,000,000 is allotted to pay the salaries of teachers, supervisors, or directors of agricultural subjects. The "allotment is made to the States in the proportion which their rural population bears to the total rural population of the United States, not including outlying possessions, according to the last preceding United States census; Provided, that the funds to any one state, for the fiscal year 1923 and thereafter, for the purpose mentioned, shall not be less than $10,000 "

INDUSTRIAL AND HOMEMAKING EDUCATION Through Section 3 the salaries of teachers of trade, home economics, and industrial subjects are aided in an annual amount equaling that for agricultural education—namely, $3,000,000

For this purpose funds are "allotted to the states in the proportion which their urban population bears to the total urban population of the United States, not including outlying possessions, according to the last preceding United States census." A clause is added specifying certain guaranteed minimums, which, for the year 1924 and annually thereafter, shall not be less than $10,000 to any state.

Another provision specifies that " . . not more than twenty per centum of the money appropriated under this act for the payment of salaries of teachers of trade, home economics and industrial subjects, for any year, shall be expended for the salaries of teachers of home economics subjects."

FUNDS FOR TEACHER-TRAINING. Section 4 of the act provides for "training teachers, supervisors, and directors of agricultural subjects and teachers of industrial and home economics subjects." The amount per year was raised from $500,000 for the year 1917-18 to $1,000,000 for the year 1921 and annually thereafter. "Said sum shall be allotted to the States in the proportion which their population bears to the total population of the United States, not including outlying possessions, according to the last preceding United States census."

For the year ending June 30, 1920, and annually thereafter not less than $10,000 is allotted to each state

STATE BOARDS FOR VOCATIONAL EDUCATION. Section 5 of the Smith-Hughes Act provides that each state accepting the provisions of the act shall establish a state board for vocational education of not less than three members. This board is "to have all necessary power to cooperate, as herein provided, with the Federal Board for Vocational Education in the administration of the provisions of this Act"[14]

The state board of education, or any other board having charge of the administration of public education in the state may be designated by the state to serve as its board for

[14] By order of the President of the United States, Executive Order No 6166, of June 10, 1933, the functions and duties of the Federal Board for Vocational Education were transferred to the Department of the Interior They were assigned to the Commissioner of Education on October 10, 1933 The Office of Education was subsequently transferred to the Federal Security Agency

vocational education. The State Board for Vocational Education, often identical with the State Board of Education or State Council of Education, as it is called in some states, is the legal administrative agency with and through which the United States Office of Education cooperates.

Each state had the opportunity either to accept or reject the plan of cooperation provided for in the act. All states accepted. Through legislation supplemental to the Smith-Hughes Act, provisions were made for the inclusion of Hawaii, Puerto Rico, Alaska, and the District of Columbia in order that they too may benefit by the provisions of the act.

The Smith-Hughes Act provides that any state may accept the benefits of any one or more of the specified funds—namely, for agricultural, home economics, or trade and industrial education. But since June 30, 1920, it has been necessary for each state to take advantage of at least the minimum amount appropriated for teacher-training in the type of vocational education concerned. For example, funds may not be spent for the salaries of teachers, supervisors, and directors of agricultural education unless the state has offered at least a minimum program of agricultural teacher-training during the same year. Similarly, expenditures during any fiscal year for salaries of teachers of home economics and of trade and industrial education are also dependent on the provision of teacher-training in those fields.

PERSONNEL OF THE FEDERAL BOARD FOR VOCATIONAL EDUCATION. Section 6 created the Federal Board for Vocational Education as a separate administrative agency and specified that it is "to consist of the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Labor, the United States Commissioner of Education, and three citizens of the United States to be appointed by the President, by and with the consent of the Senate"

The act further specified. "One of said three citizens shall be a representative of the manufacturing and the commercial interests, one a representative of agricultural interests, and one a representative of labor" Members are appointed for terms of three years. Each member of the board who

was not a member of the President's Cabinet nor Commissioner of Education received an annual salary of $5000 This provision was discontinued after the functions and duties of the board were transferred to the Office of Education in 1933. The Federal Board then became the Federal Advisory Board for Vocational Education—advisory to the Commissioner of Education, and the Vocational Education Service of the United States Office of Education, and through the latter to the states.

OTHER DUTIES OF THE BOARD. The act, Section 6, specifically mentions certain duties of the Federal Board (now the Office of Education, Vocational Division) "to make, or cause to have made studies, investigations, and reports, with particular reference to their use in aiding the States in the establishment of vocational schools and classes and in giving instruction in agriculture, trades and industries, commerce and commercial pursuits, and home economics."

When the board holds it to be advisable such studies may be carried on with or through the Departments of Agriculture, Labor, Commerce, or the Office of Education. A clause empowers the employment of such assistants as may be needed to carry out the provisions of this act.

FUNDS FOR OPERATING EXPENSES Through Section 7 the sum of $200,000 is appropriated annually to the Federal Board for Vocational Education to make studies previously mentioned, "and for the purpose of paying the salaries of the officers, the assistants, and such other expenses as the board may deem necessary to the execution and administration of this Act " Section 7 was amended by an act (Public 473, 73d Congress) approved June 26, 1934, changing the permanent appropriation to a permanent authorization.

STATE PLANS FOR VOCATIONAL EDUCATION In accordance with Section 8 of the act the respective state boards for vocational education have the responsibility of preparing state plans for vocational education. These plans show the kinds of vocational education that it is proposed to aid from federal funds, the types of schools and equipment involved,

representative courses of study, information about methods of instruction, data on teacher certification, on teacher-training, and other matters

For the sake of desirable uniformity in sequence of treatment in preparing plans, a form is made available to the states. If the state plan meets the provisions and purposes of the act, it is approved.

Section 8 also calls for an annual report to be made by the state board to the federal board on or before September first of each year This report covers the state program of vocational education and shows receipts and expenditures made under the act

FEDERAL FUNDS MATCHED BY LOCAL OR STATE FUNDS The federal funds expended under the provisions of the act are required to be matched on a dollar-for-dollar basis by the state or the local community or by a combination of state and local funds. For many years the total funds expended for vocational education by local school districts and state boards have been considerably in excess of the minimum amounts required to match the federal funds expended under the provisions of the Smith-Hughes Act.

THE CONTROLLING PURPOSE OF AGRICULTURAL EDUCATION. Section 10 of the act specifies that funds used for agricultural instruction must be for education "under public supervision and control; that the controlling purpose of such education shall be to fit for useful employment; that such education shall be of less than college grade and be designed to meet the needs of persons over fourteen years of age who have entered upon or who are preparing to enter upon the work of the farm or of the farm home."

This section also states that the state or local community or both shall provide the plant and equipment needed, and that the amount spent for the maintenance of instruction shall meet standards set by the state board.

At least six months of supervised practice in agriculture on either a school farm or another farm is required

PURPOSES OF INDUSTRIAL AND HOME ECONOMICS EDUCATION In Section 11 the aims for trade and industrial

education and for home economics education are set forth. Schools and classes in these two categories must likewise be under public supervision and control, must fit the student for useful employment in the particular field, must be of less than college grade, and must enroll persons over fourteen years of age As in agricultural education the state or community must supply the equipment and housing facilities and the funds for maintenance must meet the standards of the State Plan for Vocational Education

Section 11 also stipulates that instruction given in the schools for those who have not yet entered employment "shall require that at least half of the time of such instruction be given to work on a useful or productive basis, such instruction to extend over not less than nine months per year and not less than thirty hours per week."

Further, provision is made "that at least one-third of the sum appropriated to any State for the salaries of teachers of trade, home economics, and industrial subjects shall, if expended, be applied to part-time schools or classes for workers over fourteen years of age who have entered employment"

The subjects referred to "may mean any subject given to enlarge the civic or vocational intelligence of such workers over fourteen and less than eighteen years of age." Part-time classes under the Smith-Hughes Act must operate for at least 144 hours per year, and students attending evening industrial schools must be at least sixteen years of age.

With the approval of the Federal Board, and if in conformity with the State Plan for Vocational Education, cities and towns of less than 25,000 population may modify the conditions in Section 11 as to length of course and hours of instruction in schools and classes for those who have not entered employment.

STATE SUPERVISION OF TEACHER-TRAINING. In accordance with the provisions of Section 12 the State Plan for Vocational Education shall provide for state supervision of all vocational teacher-training subsidized from federal funds and benefiting teachers, supervisors, or directors of agricultural education, and teachers of trade and industrial

and home economics courses. The State Board for Vocational Education is also called upon to see to it "that such training shall be given only to persons who have had adequate vocational experience or contact in the line of work for which they are preparing themselves."

Not less than 20 nor more than 60 per cent of the teacher-training funds may be spent for agricultural, home economics, or trade and industrial teacher-training

STATE TREASURER AS CUSTODIAN. Section 13 provides that the state treasurer shall receive, have custody of, and disburse all moneys paid to the state in accordance with the act.

Section 14 specifies that the Federal Board for Vocational Education shall annually ascertain whether the states are using, or are prepared to use, the funds allotted to them. The Federal Board is also called upon to determine whether each state has met the provisions of its state plan and to certify to the Secretary of the Treasury the moneys due. Federal funds are paid quarterly, payments being in the nature of reimbursement for expenditures already incurred by "such schools or classes as are approved by the state board and are entitled to receive such moneys under the provisions of this Act."

Allotments may be withheld According to Section 15, unexpended federal funds are deducted from the state's next succeeding annual allotment.

Section 16 provides a penalty that may be imposed if funds are improperly expended In such case the allotment of moneys may be withheld by the Federal Board for Vocational Education. Such action may be appealed to the Congress of the United States by the state board.

Section 17 specifies that the state must make good any federal funds lost or diminished by any act or contingency. It also makes illegal the use of federal funds appropriated under the act for the "purchase, erection, preservation, or repair of any building or buildings and equipment; or for the purchase or rental of lands, or for the support of any religious or privately owned or conducted school or college."

The closing section of the act, Section 18, provides that

the Federal Board for Vocational Education shall make an annual report to Congress The date specified is December first; the document shall include reports made by the several state boards for vocational education, including, of course, those of Alaska, the District of Columbia, Hawaii, and Puerto Rico.

VOCATIONAL LEGISLATION FOR HAWAII. Through an act extending the provisions of the Smith-Hughes Act and also of the act approved June 2, 1920, entitled "An Act to provide for the promotion of vocational rehabilitation of persons disabled in industry or otherwise and their return to civil employment," Hawaii is enabled to share the benefits of these acts.[15] The act provides that for the year ending June 30, 1925, and annually thereafter $30,000 is allotted for vocational education and $5000 is made available for vocational rehabilitation. Certain other federal acts, such as the Morrill and the Smith-Lever Acts, were extended to include Hawaii through legislation approved May 16, 1928.

VOCATIONAL BENEFITS TO PUERTO RICO. An act approved March 3, 1931, extends to Puerto Rico the provisions of the Smith-Hughes Act The sum of $105,000 was made available for the fiscal year ending June 30, 1932, and annually thereafter Of this amount $30,000 may be expended for agricultural education; $30,000 for home economics; $30,000 for trade and industrial education; and $15,000 for teacher-training and supervision.

## THE GEORGE-DEEN ACT[16]

AN AUTHORIZATION ACT. The Smith-Lever and the Smith-Hughes Acts carried provisions for annual grants that will continue indefinitely unless Congress should decide otherwise. It appears that from 1917 to the present the attitude of Congress has changed somewhat with respect to grants in perpetuity The view is taken that in the light of fast-moving events the circumstances warranting federal

[15] Public No. 35, 68th Congress, H R 4121 Approved, March 10, 1924

[16] Public No 673, 74th Congress, H R 12120, Approved, June 8, 1936 As used in this act the term States and Territories refers to the Territories of Alaska and Hawaii, the Island of Puerto Rico, and the District of Columbia

grants-in-aid may change from time to time. Consequently it was held wise to make federal grants for a specified time, at the conclusion of which the need therefor could be reviewed with the expectation of increasing or decreasing the funds as circumstances dictate

In accordance with this view the George-Reed Act (1929-1934) and the George-Ellzey Act (1935-1937) made available federal aid for vocational education When the George-Deen Act was written, Congress specified that "there is hereby authorized to be appropriated for the fiscal year beginning July 1, 1937, and annually thereafter, the sum of $12,000,000 00." Although this wording authorizes the expenditure, it does not appropriate the funds Additional action on the part of Congress is required to make the funds actually available for the purposes specified.

Supplement to Smith-Hughes Act. The George-Deen Act is fundamentally designed to supplement the Smith-Hughes Act and to provide for the further development of vocational education in the several states and territories. As will be indicated presently, the act has been designed to overcome certain limitations of the Smith-Hughes law and to add flexibility to the program of federally aided vocational education

In addition to authorizing, on an annual basis, $4,000,000 each to agricultural, home economics, and trade and industrial education, the sum of $1,200,000 is authorized annually for distributive education and the sum of $1,000,000 for teacher-training.

Bases for Allotment. In this act, as well as in the Smith-Hughes Act, any reference to population means that reported in the latest United States census. It is to be noted that the methods of apportioning funds specified in the George-Deen Act differ somewhat from those in the Smith-Hughes Act. For example, under the George-Deen Act states and territories are authorized to have funds allotted for agricultural education "in the proportion that their farm population bears to the total farm population of the United States and territories."

For home economics the ratio is that which the rural

population of the state or territory bears to the total rural population of the United States and territories. For trade and industrial education, funds are allotted to the states and territories in the ratio that their nonfarm population bears to the total nonfarm population of the United States and territories. For purposes of aiding distributive education the ratio is that of the total population of the state or territory to the total population of the United States and territories. This same ratio is used for aiding teacher-training.

Minimum allotments are provided in the amount of $20,000 annually for each of the three types of education—agricultural, home economics, and trade and industrial. For distributive education and for teacher-training the minimums guaranteed are $10,000 annually to each.

Plan of Matching Federal Funds. A sliding scale is provided for matching federal funds under the act. The several states and territories are required to match federal funds with state or local funds or both on the following basis: from July 1, 1937, until June 30, 1942, 50 per cent, for the year ending June 30, 1943, 60 per cent; for the year ending June 30, 1944, 70 per cent; for the fiscal year 1945-46, 80 per cent; for the fiscal year 1946-47, 90 per cent, and annually thereafter 100 per cent.

Conditions and Limitations. The appropriations authorized in this act are in addition to those specified in the Smith-Hughes Act and are subject to the same conditions with certain definite exceptions. These include

*a.* Supervised practice for at least 6 months per year is not mandatory as under Section 11 of the Smith-Hughes Act.

*b.* Part-time schools and classes shall be held to include any part-time day school classes for workers 14 years of age or over and evening school classes for workers 16 years of age and over.

*c.* Distributive educational subjects shall be limited to part-time and evening schools as specified for trade, home economics, and industrial subjects and as qualified by the provisions of Section 11 of the Smith-Hughes Act.

*d.* The appropriations made to the Office of Education for carrying out the provisions of the act "shall be available for expenses of attendance at meetings of educational associations and other organizations and for expenses of conferees called to meet in the District of Columbia or elsewhere, which, in the opinion of the commissioner, are necessary for the efficient discharge of the provisions of this Act"

*e.* Funds authorized for the various categories—namely, agricultural, homemaking, trade and industrial, and distributive education—may be spent for travel expenses as well as for salaries of those qualified and serving as teachers, supervisors, and directors, and in the maintenance of teacher-training

*f.* Section 6a of this act was included to make sure that funds would not be used for industrial-plant training programs except where such training is bona fide vocational training. It specifically prohibits using vocational training as a device for private profit

State Laws Relating to Vocational Education. Soon after the Smith-Hughes Act was passed, the several states made provisions to accept it and to cooperate effectively with the Federal Board for Vocational Education By January 1, 1918, every state in the union had indicated its desire to do so. State school laws relating to vocational education were drawn up or modified to meet the new standard. Some states have school laws that enable them to aid from state funds certain forms of vocational education that for some reason or other may not be reimbursable from federal funds. The federally aided program of vocational education is not the total program. For example, private and denominational schools are not aided under the federal vocational education acts There are also extensive programs of vocational education, such as those sponsored by employers or corporations and labor unions, that are not federally aided. It would be possible to aid them from state funds if state acts should so provide.

Effects of Federal Legislation. The influences of the federal vocational education acts are relatively easy to

see. Nation-wide, strong public support, such as has been in evidence whenever proposed vocational education legislation of less than college grade has come up for consideration in Congress, is merely one evidence that the majority of the people believe in vocational education

Available evidence indicates that the provisions of such acts as the Smith-Hughes Act and its supplements, including the George-Deen Act, have been potent factors in the development of vocational education far superior, far greater, and more effective than would have been possible without them

The resources in the way of experienced and professionally trained personnel, carefully planned courses and curriculums, and extensive equipment available at our government's call for service when war was declared were due in large measure to stimulating effects of the Smith-Hughes Act and to the fine cooperative effort for better vocational education in which local, state, and federal resources and leadership had been used for twenty-seven years

Federal Domination not an Inevitable Result of Federal Aid Those who oppose federal grants-in-aid of public education often do so for one of three reasons. The first is that they will infringe upon states' rights It appears significant that the states which most feared that result are now among the staunchest supporters of the Smith-Hughes and George-Deen Acts.

The second objection is advanced by persons in wealthy states which pay more to the federal government in taxes than the financial aid they get in return It seems fair that the wealthier states should contribute to equalizing the burden of education. The third reason advanced in opposition to such acts as the Smith-Hughes law comes from persons who fear federal control. There appears to be little if any objective evidence to prove that 27 years of operation under the Smith-Hughes Act has brought about changes in federal-state relations that point to any attempt on the part of the federal government to usurp state prerogatives. The views of the Commissioner of Education may be of interest in that connection. Said Dr. Studebaker

My whole personal experience in managing education in the States makes me feel that very much federal control is neither desirable nor necessary I would not want to see the day come when the United States Office of Education in Washington is put in the position of forcing the States to accept ideas generated in the United States Office of Education, by using coercive measures If the United States Office of Education has some good ideas about education, and presents these ideas to the States, I feel confident that the States rather rapidly will accept the ideas if the States are in a financial position to do so.[17]

PRESERVATION OF LOCAL GOVERNMENT. V. O. Key, Jr., says:

Functions formerly regarded as local in character have come to affect state, regional and national interests. Many problems of modern society cannot be met effectively by either national, state or local governments working alone. In this grants-in-aid is a highly important device. The alternative in many cases is federal assumption of all, or of a part of, a particular activity. . That the effect of grants from a central government to a local government is to preserve local government is frequently overlooked.[18]

OTHER REASONS FOR GRANTS-IN-AID. It is claimed by some that civil service in the federal government is in the main superior to that of the states[19] The federal staff is better able to keep in touch with what is going on in the country as a whole and is more free from local political pressure.

As a means of furthering cordial relations between the federal government and the states, Key recommends a deliberate policy of recruiting federal supervisory personnel largely from the operating staffs of the state agencies He maintains that career-service should be developed between the states and the federal government As a matter of fact, the United States Office of Education is one of the federal agencies where this practice has been followed for years.

Probably no one appreciates more fully than do those who administer federal grants-in-aid that cordial and cooperative federal-state relations are basic to our national welfare and that a large measure of local and state initiative is highly

[17] John W Studebaker in a statement made before the United States Committee on Education and Labor

[18] V. O Key, Jr, *The Administration of Federal Grants to States.*

[19] *Ibid.*

important to the betterment of programs in which all have interest.

### FOR DISCUSSION

1 Show how vocational education is vital to national welfare
2 Describe an emergency need that was met effectively through vocational education
3. Explain how federal aid helps to equalize opportunities.
4 How much do school terms differ in length?
5. Why are there differences in quality of educational service?
6 How extensive is illiteracy in the United States? What are the consequences?
7 Show the relationship between federal aid for vocational education and migratory workers.
8. State how local and state programs may be stimulated through federal aid
9 How are higher standards fostered by federal acts passed to promote vocational education?
10 State and discuss four reasons for federal grants-in-aid
11 What does Mort mean by a "defensible foundation" program?
12. Explain the purposes and provisions of the Smith-Lever Act.
13 By whom was the Smith-Hughes Act conceived and sponsored?
14 What are the chief purposes of the Smith-Hughes Act?
15 For what purposes may agricultural funds under the Smith-Hughes Act be used? Home economics funds? Trade and industrial funds?
16 Describe the legal authority, composition, and function of a State Board for Vocational Education
17 Of whom is the Federal Board for Vocational Education (currently the Federal Advisory Board for Vocational Education) composed?
18. Name as many duties as possible of the vocational staff of the United States Office of Education
19 Describe in considerable detail the State Plan for Vocational Education for your state
20 Mention the controlling purpose of each of the four major categories of vocational education.
21. Explain how federal funds are safeguarded under the Smith-Hughes Act against loss or misuse
22 Cite the main features of the George-Deen Act
23 Mention the chief points of difference between the provisions of the George-Deen Act and of the Smith-Hughes Act
24 Appraise the effects of federal vocational education legislation upon the national program of vocational education.

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NOTE. See also the state school laws relating to vocational education in the states of major interest

# CHAPTER 6

## *The Framework of Federal, State, and Local Administrative Agencies*

THE FEDERAL SECURITY AGENCY. The Federal Security Agency was created by President Roosevelt's Reorganization Plan No. 1 of April 25, 1939. Among the reasons for creating this major division of the government were the reduction of expenditures, the increase of efficiency, and the relief of overlapping and duplication of effort.[1] The agency is of special interest to students of education because it administers constituent services that concern themselves with social and economic security, health, and education.

Under the plan as first set up, the following agencies were grouped to form the Federal Security Agency the Civilian Conservation Corps, National Youth Administration, Office of Education, Public Health Service, Social Security Board, and the United States Employment Service, currently a division of the Bureau of Employment Security of the Social Security Board. Other services were added later.

The Federal Security Agency is under the direction of the Federal Security Administrator, a member of the President's Cabinet. There are an assistant administrator and special and technical assistants of many kinds.[2]

THE UNITED STATES OFFICE OF EDUCATION. The United States Office of Education was established by an act of Congress approved March 2, 1867, "for the purpose of collecting such statistics and facts as shall show the condition and progress of education in the several states and territories, and of diffusing such information respecting the

[1] Based on data from *The United States Government Manual*, available through the Superintendent of Documents, Washington, D C An official government publication, revised three times annually

[2] *Ibid*

organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment of, and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country."[3]

The word office gives a very inadequate picture of the scope of the United States Office of Education. Many believe that the importance of national welfare and the range of services involved warrant placing the office on a level with the departments, heads of which hold Cabinet rank.

The affairs of the Office of Education[4] are administered by the United States Commissioner of Education, an Assistant Commissioner, and an Assistant Commissioner for Vocational Education.

There are an appreciable number of chiefs of divisions, consultants, and other highly trained personnel. Among the divisions and important officials may be mentioned:[5] Division of School Administrative Services, Division of Instructional Services, Higher Education Division, Comparative Education Division, Statistical Division, Radio, Publications and Exhibits, Editorial Division, Library, Library Service Division, Deputy Assistant Commissioner for Vocational Education, Executive Assistant in Vocational Education, and Consultants in Vocational Education

In addition there are Chiefs of the Agricultural Education Service, Trade and Industrial Education Service, Home Economics Education Service, Business Education Service, Occupational and Informational Guidance Service, Research and Statistical Service (vocational education). It is to be understood that all these administrative, supervisory, advisory, and other executive personnel have associates, assistants, and other staff members, for the service load borne by the Office of Education is heavy.

[3] By Executive Order 9247, President Franklin D. Roosevelt on September 17, 1942, transferred certain agencies, functions, duties, and powers to the Manpower Commission in the Office for Emergency Management This transfer included many agencies, such as the United States Employment Service the National Youth Organization, and the Training within Industry Service

[4] Here and wherever else that misunderstanding is unlikely the term Office of Education and Office are used as simplified forms of the more cumbersome United States Office of Education.

[5] *Congressional Directory*

FUNCTIONS OF THE OFFICE OF EDUCATION. Some of the functions of the Office can be judged by the titles of divisions, chiefs, and services. The *United States Government Manual*[6] supplies a concise list of functions. They include:

Compilation of information on education.
Cooperation with local educational groups
Vocational education: administration of vocational education acts.
Making studies and investigations relating to vocational education.
Supervision of vocational education
Publication of information regarding education
Administration of funds for land-grant colleges
Inspection of Howard University
War-training activities.

The war-training activities quickly became an important responsibility. On July 26, 1941, the Commissioner of Education announced that the Chief of the Trade and Industrial Education Service of the United States Office of Education was to continue as Director of Vocational Training for National Defense, a position he had filled since March, 1941. Among the duties devolving upon him and those associated with him for purposes of implementing the program of vocational training for war production are:[7]

1. Cooperating with the states and local communities in carrying out the provisions of acts relating to vocational education for national defense.
2. Assisting the states through state boards of vocational education to plan, organize, operate, and expand: (*a*) courses supplemental to the daily employment of persons engaged in occupations essential for war production, (*b*) courses of a pre-employment nature relating to war production, and (*c*) courses of the "refresher" type, given to persons who need instruction that will bring them up-to-date in their occupations, including those in essential war industries.
3. Assisting states in ordering and securing new or used equipment, critical materials, and space or housing facilities needed for vocational training for war production and service.
4. Cooperating through the Director of Engineering, Science and Management Training for War Production, in the Office of Education, in conducting short courses for engineers, chemists, physicists, and production supervisors with special training.
5. Cooperating with the War Department, Navy Department, and other federal agencies, state and local governmental agencies, and local, state, and national nongovernmental organizations having an

[6] *United States Government Manual*
[7] *Ibid*

interest in vocational training directly related to the civilian war effort.

6. Developing training programs for uniformed personnel of the Army and Navy, the cost of which is paid by these agencies in accordance with procedures established by them.

THE VOCATIONAL DIVISION, OFFICE OF EDUCATION. It may be remembered that previous references were made to the fact that the Federal Board for Vocational Education was established as an independent administrative agency, approved February 23, 1917, to administer the Smith-Hughes Act, and that, by Presidential order, the duties and functions of the Federal Board for Vocational Education were transferred to the Department of the Interior and were assigned to the Commissioner of Education on October 10, 1933.

When the transfer was made, Dr. J. C. Wright, the Director of the Federal Board for Vocational Education, by order of the Secretary of the Department of the Interior, became the Assistant United States Commissioner for Vocational Education with "no change in duties." The professional staff of the Federal Board was transferred with its director to the Office of Education, in which it has continued to function as the group directly responsible for carrying out the provisions of the Smith-Hughes and other acts relating to vocational education of less than college grade, under the general direction of the Commissioner of Education and with the advice of the Federal Advisory Board for Vocational Education.

The organization of the Vocational Division of the Office of Education and its relationship to the states are shown in Fig. 3. The chart shows the general plan Modifications of it are naturally to be expected from time to time. It will be noted that advisory committees function all along the line The administrative responsibility starts with the Assistant Commissioner for Vocational Education. The State Plan for Vocational Education serves as the official plan and specifications, and the State Executive Officer and the State Director of Vocational Education function as state administrators of federally aided vocational education. The chart also shows the chief divisions or services of the Vocational

Division of the Office of Education and indicates how they serve the four regional groups of states and territories.

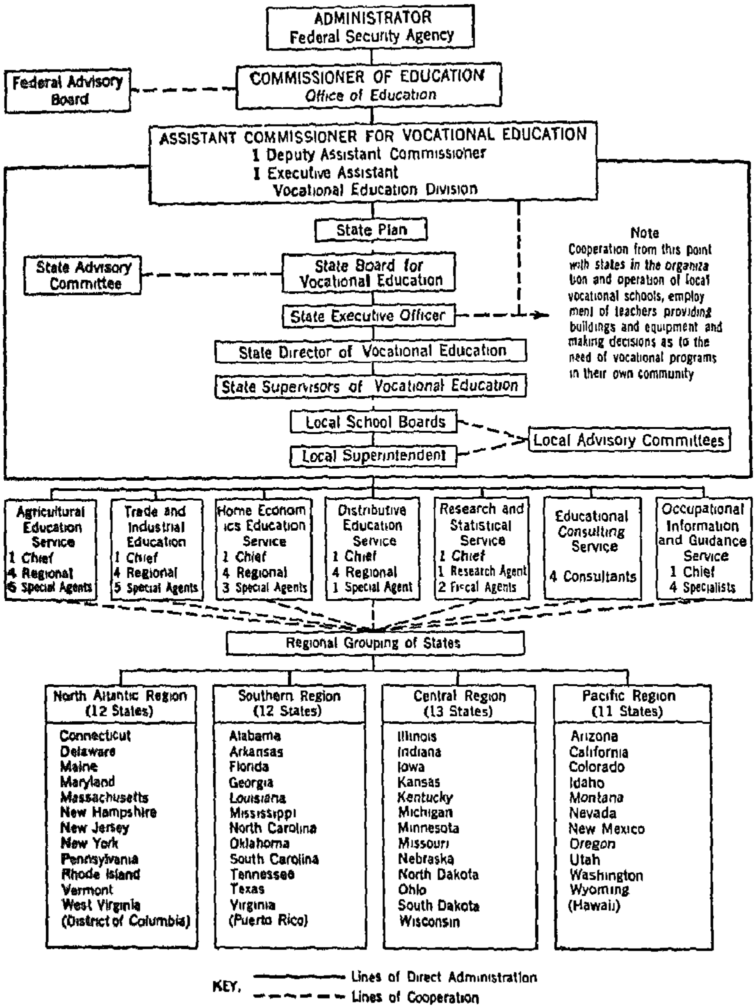



Fig. 3. Organization of federal administration of vocational education.

FEDERAL-STATE-LOCAL RELATIONSHIPS. The federal-state services function through the State Director of Vocational Education and the professional staff assisting him, to

city, county, and local boards of education, and through the different types of schools, to the people.

Within the limits of policies that have been determined and duties and functions that are delegated to him, the State Director of Vocational Education serves as the coordinating and administrative agent in dealing with the Office of Education. When new policies are involved which the state board desires to pass upon, the state director will clear the matter with the state board. State boards differ in the extent to which they desire to pass on policies or professional matters instead of referring them for action to the state director or other appropriate members of the professional staff

Much the same situation prevails in relationships at the city, county, or other local levels When administrative and supervisory officers are considering new positions, they naturally want to know to what extent they will be permitted to function in creative and progressive capacities

Teachers, too, are interested in positions where their resourcefulness, initiative, and effort will be appreciated and used as fully as possible

FEDERAL-STATE RELATIONS FOR WAR PRODUCTION. Congress delegated the responsibility of training civilians for occupations related to the war effort to the United States Office of Education. It may be recalled that the program at the less than college grade was first known as the program of Vocational Education for National Defense and later as Vocational Training for War Production Workers. It was supported entirely out of federal funds and cleared through the state board for vocational education

Funds to pay the cost of courses conducted in the program of vocational training for war production workers were made available to the states in the following manner:

1. Local public school authorities with the advice and counsel of representative advisory committees submitted budgets to State Boards for Vocational Education. The budgets were based upon courses in operation and those that it was proposed to start during the budget period Whenever the training courses were operated

directly by the state boards the budgets were prepared by the boards.

2. After review by the state board, the budgets approved were submitted to the Director, Vocational Training for War Production Workers, United States Office of Education, for final action.
3. If approved by the director, funds to pay the cost of courses were sent to the State Boards for Vocational Education to be disbursed in accordance with procedures established by the boards

THE FOOD PRODUCTION WAR-TRAINING PROGRAM. The Agricultural Education Service of the United States Office of Education administers funds appropriated under the provisions of the National Defense Training Division of the Labor Federal Security Appropriation Act These funds are allotted to the several states on the basis of rural population and are administered within the state by State Boards for Vocational Education. The funds have been appropriated "for the cost of vocational courses in food production and conservation, mechanics, farm machinery repair, and farm labor training of less than college grade designed to give general preemployment mechanical training and to assist in attaining the production goals for those farm commodities designated from time to time in the Food for Freedom Program promulgated by the United States Department of Agriculture . ."

State Boards for Vocational Education conduct these training programs through local boards of education, using personnel and facilities of the local public schools. Training programs provide for the development of skills in the repair, operation, and construction of farm machinery, equipment, and farm buildings. These programs also include provision for short-unit, intensive courses in the production and conservation of vitally important food products A total of twenty-one courses has been approved. Funds are also available for the purchase and rental of equipment and the rental of space

ORGANIZATION OF THE SERVICES OF THE OFFICE OF EDUCATION The Vocational Division of the United States

Office of Education is divided into "services," such as Agricultural Education Service, Trade and Industrial Education Service, Home Economics Education Service, Business Education Service, and Occupational Information and Guidance Service[8]

The services are in charge of a chief. Regional agents and special agents, as a rule, carry out their functions and responsibilities under the direction of the chief of the service concerned The chiefs in turn operate under the guidance of the Assistant Commissioner for Vocational Education

Experience has shown the wisdom of a limited number of regional agents to avoid having too many different individuals from the Office of Education in contact with the state departments of public instruction and local school systems Local school authorities do not always distinguish as clearly as they should between various representatives of federal and state departments of education. It is consequently held to be good practice for field contacts from the Vocational Division to clear through the regional agent assigned to the area concerned. The regional agent is expected to know the area he serves, and by having others of the Division who have business in his area clear through him, overlapping and duplication of effort can be avoided. What is equally important, the regional agent can help to plan the contacts to be made and the routes of travel of the visiting staff member to better advantage than could the latter.

Each regional agent is the chief field representative for the area to which he is assigned—approximately a dozen states He may be aided by assistant or special agents. Some special agents have assignments covering a limited area, whereas the service of others covers the whole country. Although some agents follow continuously the same work, such as trade and industrial education for women and girls, others have varying responsibilities.

The Office of Education has field agents who are thoroughly grounded in the requirements of the legislative acts under which they operate, the policies of the Office, and the rulings and interpretations that have been made. When

[8] See Fig 3

agents go into the field they make it a point to be familiar with previous discussions, correspondence, or other contacts relating to the work or the problems in hand so that their time may be spent as helpfully as possible They often take with them bulletins, circulars, record forms, and other aids to leave with those who will use them in the states

To save time and money regional and special agents are often away from their base, Washington, D. C , for extended periods. Trips are carefully charted ahead of time so that each hour will be spent to the best possible advantage.

CORRESPONDENCE, RECORDS, AND REPORTS. In an organization such as the Vocational Division of the Office of Education the amount of correspondence varies considerably from day to day Records and reports from the states are received and processed and the results made available. This work requires the cooperation of field personnel, statisticians, and others. Many of the reports are used as a basis for budget estimates and for other planning reports to Congress and to the states It is therefore highly important that they be submitted when requested and that they be complete and free of error

To make all official correspondence available at all times to everyone who has occasion to use it, central files are maintained. Indexing, filing, and keeping in touch with all correspondence, records, and reports comprise a service that in itself is stupendous. Trained messengers are used to expedite delivery to and from the various offices

THE OFFICE OF EDUCATION LIBRARY The Office of Education library serves as a repository for books dealing with education and is perhaps the most complete library of educational literature in the United States Its services continue to expand. Students of education are especially interested in the extensive collection of theses, courses of study, and text and reference books which may be secured for their use in all parts of the United States through interlibrary loans

The collections are increased through gifts as well as through purchase By exchange, the library helps to fill the gaps in other libraries. It also shares in such activities as

guidance, radio, information exchange, training for war production, Latin-American relations, and in other fields of service. Persons engaged in research find the library very helpful

INFORMATION EXCHANGE ON EDUCATION. In January, 1941, the United States Office of Education established its Information Exchange The purpose of this service is "to provide a clearing house for the collection, analysis, and dissemination of information regarding practices of school systems and institutions of higher education as they relate to National Defense" and, currently, the war effort.[9]

Schools were asked to send fifty copies of material suitable for the packets, which were made up of approximately ten items each. These packets relate to specified common problems and can be secured either from the Information Exchange or through branch service stations in the states. A list of the topics covered is available

BULLETINS, MONOGRAPHS, AND LEAFLETS For some years the magazine *School Life* has been the official journal of the Office of Education. It contains timely and significant information in the various areas of education, including vocational education. During the emergency the publication of *School Life* was discontinued. In its place *Education for Victory* was issued

From time to time the Office of Education makes available for distribution a revised list of its various publications. A separate list is issued by the Vocational Division under the title: *Publications, Vocational Division,* Misc 229 (followed by the date of revision). The following kinds of publications are listed, each as a separate series, in Misc. 229: annual reports, bulletins, leaflets, monographs, and miscellanies [10]

FRAMEWORK OF STATE DEPARTMENTS OF EDUCATION. Cocking and Gilmore have shown that state departments of education vary considerably in organization and function.

[9] *Annual Report of the Commissioner of Education,* 1941, p 35

[10] Most of the publications are obtainable through the Superintendent of Documents, United States Government Printing Office, Washington, D. C, at nominal cost

"An analysis of the organization and function of State boards of education is an unsatisfactory undertaking. The functions of the many boards differ greatly."[11]

It is probable that the functions and responsibilities of state boards for vocational education may vary somewhat less because these boards were created to administer vocational education acts in conformity with the provisions of those acts. It is to be expected that there are certain differences in plans of organization between states in which agricultural pursuits are dominant and others in which manufacturing is the chief industry.

THE STATE BOARD FOR VOCATIONAL EDUCATION. With few exceptions the several state boards of education also serve as the state boards for vocational education. The Smith-Hughes Act specifies that the state board administering the act "shall consist of not less than three members, and having all necessary power to cooperate, as herein provided, with the Federal Board for Vocational Education in the administration of the provisions of this act"[12] Sometimes a committee of three or more of the state board of education serve in the capacity of the state board for vocational education. The latter usually acts through its state director of vocational education.

THE STATE DIRECTOR OF VOCATIONAL EDUCATION In about one-fourth of the states the chief state school officer, often called the state superintendent of public instruction, serves as director of vocational education. In the states with smaller populations it is common practice to select a state director of vocational education who qualifies also as a state supervisor of some form of vocational education, such as agricultural education or trade and industrial education. In many instances such an arrangement has distinct advantages. For example, it makes it possible for one person who is thoroughly acquainted with at least one major aspect of vocational education to serve as state director and also as state supervisor in the special field in

[11] Walter D. Cocking and Charles H Gilmore, *Organization and Administration of Public Education*, pp 67-113

[12] Section 4 of the Smith-Hughes Act.

which he qualifies. In the more populous states it is necessary for the state director to devote the major portion or all of his time to the duties of that office

DUTIES OF THE STATE DIRECTOR OF VOCATIONAL EDUCATION. At the risk of oversimplification for the sake of conciseness, it may be said that the state director of vocational education and his staff, cooperating with others, are responsible for a long array of functions and duties of which the following are representative·

1. Serving as the professionally trained staff under the general direction of the state board for vocational education
2. Preparing the state plan for vocational education.
3. Determining policies for vocational education under public supervision and control
4. Prescribing rules and regulations for vocational education in harmony with the state plan, and the rulings and policies of the state board for vocational education and in conformity to school and other laws of the state
5. Preparing and fostering needed vocational education legislation
6. Administering federal and state acts dealing with vocational education
7. Supervising the state program of public vocational education
8. Cooperating with federal, state, and local agencies in promoting and improving vocational education
9. Preparing budgets, securing the funds needed, and seeing to it that they are expended lawfully
10. Developing standards for the certification, professional improvement, and tenure of all kinds of vocational teachers, supervisors, and directors
11. Developing standards for housing, equipment, courses of study, and curriculums.
12. Approving for reimbursement vocational classes and schools
13. Cooperating with labor, employers, and others in the establishment and operation of functional representative advisory committees
14. Cooperating with the proper agencies in furthering the war effort and, when hostilities have ceased, participating in postwar reconversion training and such other essential forms of vocational training as may be needed
15. Assisting the school districts of the state through vocational educational service and in such other ways as shall be in the interests of the people of the communities, the state, and the United States

STATE SUPERVISORS OF VOCATIONAL EDUCATION A state supervisor is the official in charge of a particular form of vocational education—for example, supervisor of

home economics or supervisor of distributive education. The qualifications of state supervisors of vocational education must meet the requirements specified in the state plan for vocational education In general, these include occupational experience, several years of vocational training experience in the field concerned, usually several years of local supervisory or administrative experience, a specified amount of professional education, a suitable personality, and demonstrated leadership ability.

The successful state supervisor knows how to get along with people. He exercises discretion and restraint, as well as courage, under trying circumstances He understands the difference between supervision as a creative, constructive art and "snoopervision." He places emphasis upon promotional supervision as distinguished from inspection of the narrow type It is his duty to check on standards, practices, courses of study, teaching techniques, reports, housing, and a host of other things, but he does it impartially, professionally, and without harassing or rancor.

The successful state supervisor develops cordial professional relations. He is an important part of the field service. It takes years, not months, to get thoroughly acquainted with the people to be served, the special local conditions that obtain, and the key persons or agencies through which progress can be made to best advantage.

LARGER UNITS OF ADMINISTRATION. It is generally known that in many instances educational advantages superior to those now in effect may be attained through larger units of administration. In this respect education is like business, in which the size of the organization has definite relationship to unit cost and quality of service. It is evident to practically everyone that a one-teacher school cannot offer the advantages of a consolidated school

The cost of equipment, housing, and instruction for modern units of vocational education is such as to warrant their establishment only where groups of learners of appropriate size are available. This statement applies more to some forms of vocational education and to certain kinds of vocational classes than to others. For example, where extensive shop or laboratory equipment is involved, it is im-

perative that it be used fully in order to keep down unit cost On the other hand, if the instruction is of a classroom nature, the classes can be held in nonvocational schools at a minimum cost.

Conditions differ so much among communities and states that a variety of larger units of administration are used. Among these are the county unit, consolidated schools, area or regional schools, and state schools.

AGRICULTURAL SCHOOLS. Not long after the establishment of land-grant colleges under the Morrill Act of 1862, distinction was made between agricultural education of secondary grade and that at college level. The need for agricultural education at both levels was apparent. Some of the colleges tried to meet it by operating short courses, one-year courses, and two-year courses

In response to popular demand agricultural schools independent of colleges were soon organized As early as 1898 Alabama established the first congressional district school. Others followed, and by the close of the year the state had six such schools.[13]

The state of New York established a state school of agriculture at Canton in 1906 and others at Alfred and Morrisville in 1908. Georgia established the first of its congressional district schools in 1907. During the same year Oklahoma established a state school of agriculture The Smith School of Agriculture was founded at Northampton, Massachusetts, in 1908 Other states, such as Vermont, Michigan, Kentucky, Mississippi, Minnesota, Idaho, Louisiana, Maryland, Wisconsin, and Texas, followed rapidly.[14]

TRADE SCHOOLS. Connecticut pioneered in the development of state trade schools. The first two schools were established in 1910 in Bridgeport and New Britain. Since then the number of these schools has increased, not only in Connecticut but also in many other states. Some state trade schools are operated in cooperation with local boards of education, whereas others function entirely under state control

[13] Edwin A Lee, *Objectives and Problems of Vocational Education*, "Agricultural Education in Secondary Schools," Chapter 4

[14] *Ibid*

The state of New Jersey pioneered in the development of county trade schools for men and women In 1913 New Jersey passed an act permitting vocational education to be organized and supported on a county unit plan. The first units of the Essex County vocational school system were established in 1915 under the direction of the Essex County Vocational School Board, a special board set up for the purpose of making vocational education available to residents of Essex County In 1925 the city of Newark turned over its vocational program to the county board of education. There is no tuition for residents of the county. The schools are supported from taxes. Nonresidents may attend by paying nonresident tuition fees.

PENNSYLVANIA'S COUNTY VOCATIONAL EDUCATION ACT.[15] In 1937, Pennsylvania enacted its County Vocational Education Act, which gives to boards of education the power to make surveys to determine the need for vocational education, to establish rules and regulations regarding vocational education, and to employ teachers, supervisors, and others needed to operate programs of vocational education.

The boards of directors of vocational schools are given many other powers, such as to purchase, improve, and sell land, to build, repair, improve, lease, rent, or sell buildings, to acquire real property, to incur and increase indebtedness, and to issue bonds The boards of directors may also enter into contracts and purchase all necessary furniture, implements, books, materials, and equipment. They are given "such powers and duties as are necessary to carry into effect the purpose of this Act."

It remains to be seen to what extent the county proves the best unit for educational service. Sometimes the county is undoubtedly a good unit. There are other instances when it is not Perhaps that is why we have, and should continue to have, other ways of creating larger units for school purposes. Topography, roads, means of transportation, density of population, community interests, leading industries, and financial and other resources are some of the factors that must be taken into account when service units are developed.

[15] Act No 355, approved July 1, 1937.

SPECIAL FEDERAL ADVISORY COMMITTEES. In addition to the Federal Advisory Board for Vocational Education, which succeeded the Federal Board for Vocational Education, the United States Office of Education has seen fit to call to its assistance other advisory bodies, such as the Technical Advisory Committee on Trade and Industrial Education, the Joint Committee on Relationships in Agriculture and Homemaking Education of the United States Office of Education, the Agricultural Extension Service of the United States Department of Agriculture, the Joint A.F. of L.-C.I.O Consulting Committee, the National Committee on Standards in Agricultural Education, and the National Technical Advisory Committee on Vocational Agriculture[16] These committees are mentioned to indicate how much significance the Office of Education places upon cooperation, progress through pooled judgments, and democratic procedures as means of progress In these respects the Office of Education has set a good example to states and to local districts. The office has stoutly urged state boards of vocational education to make full use of advisory committees. It must be said in fairness that the office practices what it preaches.

STATE AND LOCAL ADVISORY COMMITTEES In Chapter 1 attention was called to the fact that the Office of Education has urged the appointment of representative advisory committees on state and local bases. The emphasis is on not only the word representative but also advisory. More than fifteen hundred such committees are currently in operation Many of them appoint craft or occupational consultants to assist the committees on certain matters In this way the committees can be kept small enough to make progress rapidly Consultants are called only when needed.

State advisory committees have been appointed in all the states and corresponding ones in the District of Columbia and Puerto Rico. Nearly all school districts operating training programs for war production use advisory

[16] United States Office of Education, *Digest of Annual Reports of State Boards for Vocational Education to the United States Office of Education,* for the year ending June 30, 1941, pp. 29-32

committees[17] Through carefully selected representative and cooperative advisory committees, vocational schools can hope to secure maximum cooperation from labor, employers, and other agencies.

THE LOCAL BOARD OF EDUCATION. The Educational Policies Commission holds local school administration to be of "surpassing importance in our Democracy."[18] This view meets with wide approval. Quite aside from the fact that education is a state function and one in which the federal government has a vital interest, it is by general agreement and for good reasons that the states have all wisely delegated to local boards of education or to trustees the manifold functions and powers that local authorities can work out best.

The scope of authority vested in local boards of education varies to a considerable extent. Boards of education that employ superior administrators, supervisors, and teachers and have demonstrated high accomplishment are usually given maximum freedom to use local resourcefulness and initiative. School districts that have never before given vocational education usually need the most help from the state office.

As teachers, supervisors, and administrators become better trained professionally and as other essential standards are advanced, it appears reasonable that local districts be given correspondingly larger opportunities for self-government within the general framework of the state plan for vocational education and of school law.

THE LOCAL DIRECTOR OF VOCATIONAL EDUCATION. It is quite obvious that there are differences between the responsibilities of directors of vocational education in the various fields, such as agricultural and trade and industrial education. Other differences are due to such factors as the size of the administrative unit, state school laws, and state and local policies Therefore in discussing the functions and

[17] *Ibid.*, p. 6

[18] Educational Policies Commission, *The Structure and Administration of Education in American Democracy*, p 71

duties of local directors of vocational education, allowance should be made for local variations.

Under the general direction of the board of education and the superintendent of schools, directors of vocational education frequently have responsibilities and functions, some of which are:

1 Serving as local administrator and supervisor of vocational education
2 Making surveys, studies, and analyses from time to time to determine the nature and scope of current and probable future needs for vocational education in the community.
3 Developing or improving the local plan for vocational education in harmony with the state plan for vocational education and with the policies of the board of education.
4 Preparing budgets covering administrative, supervisory, instructional, material, equipment, and other necessary costs and recommending approval of them to the superintendent of schools
5. Recommending to the superintendent of schools the employment of all-day, part-time, and evening school teachers and all other persons needed for the operation of the program of vocational education
6. Recommending to the superintendent of schools the appointment of representative advisory committees, together with craft or other consultants, to assist in improving and developing vocational education
7. Putting the program of vocational education into operation with the assistance of advisory committees, teachers, and others.
8. Participating in and guiding curriculum development, course of study making, and functional research.
9. Cooperating in vocational guidance, placement, and follow-up of youth and adults
10. Setting up for vocational education a practical system of records, accounts, and cost control
11 Working out a feasible plan for self-improvement and for the improvement of teachers in service.
12. Working cooperatively with others in aggressively furthering local, state, and national welfare through vocational training for war production, postwar reconversion to peacetime pursuits, and such other activities as may be necessary.

## THE TEACHER'S FUNCTIONS AND RESPONSIBILITIES

The broadening concept of the place and function of teachers in the framework of vocational education is becoming a matter of common knowledge We no longer think of teachers limiting their function to teaching, important as

that is Among current practices of promise in vocational education may be mentioned. (1) looking upon teachers as coworkers with supervisory and administrative officers; (2) using teachers to help make vocational surveys and occupational studies; (3) having them participate in developing community contacts with homes, employers, and social and welfare agencies of many kinds; (4) using them as coordinators; (5) having them contribute to the formulation of educational policy, (6) using them to develop fundamental loyalties, to build character and personality, and to foster ideals and attitudes basic to national welfare; (7) asking teachers to contribute to developing healthful, thoughtful, and resourceful citizens; (8) carrying out other useful services for which the teachers have aptitudes; and (9) performing such duties as essential parts of their valued services and by no means as substitutes for carefully planned, enthusiastic teaching in their chosen area of education.

## *FOR DISCUSSION*

1. Describe the organization and the functions of the Federal Security Agency
2. Describe the general organization of the United States Office of Education
3. Mention nine major functions of the Office of Education.
4. Explain how the Vocational Division of the Office of Education was established
5. What are the chief divisions or services of the Office of Education?
6. Name the regional groupings and indicate their size.
7. State the major duties of a state director of vocational education.
8. Explain the functions and duties of a regional agent representing the United States Office of Education, Vocational Division
9. Appraise the United States Office of Education library.
10. Describe the literature prepared and issued by the Office of Education.
11. How may state boards for vocational education be constituted?
12. Who may serve as state director of vocational education?
13. What are the chief duties and functions of a state director of vocational education?
14. Enumerate the chief duties of a state supervisor of vocational education in your field of major interest.
15. Explain the chief advantages of larger units of administration
16. What are the principal arguments advanced against establishing larger units of administration?
17. Compare two or more forms of larger units that hold promise for better vocational education.

18. Sketch the development of agricultural schools in the United States.

19 Distinguish between a state vocational school and a locally operated vocational school

20 Appraise the County Vocational Education Act approved in Pennsylvania in 1937.

21 Name a number of special advisory committees consulted by the United States Office of Education and state why they are used

22 How should local advisory committees be created, and what should be their chief functions?

23 Explain the chief duties of a local director of vocational education

24 What forms of professional service in addition to teaching should vocational instructors render?

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NOTE See also state plans for vocational education of states of special interest.

# CHAPTER 7

## *Thirty-Three Basic Vocational Education Principles and Concepts*

PRINCIPLES SERVE AS GUIDES Great social-economic movements like vocational education result when fundamental ideas are put into practice Just as beacons guide airplanes, so fundamental principles and concepts regarding vocational education help us determine policies, plans, and procedures.

A number of basic guides to action were incorporated in the federal vocational education acts and in state plans for vocational education Some of these have already been mentioned in previous chapters, and others will be treated in succeeding ones There are, however, advantages in setting forth a selected group of basic principles, together with explanatory statements, in one chapter—not with the idea of completeness, but for convenience to the reader and as a supplement to other discussions. Familiarity with fundamental concepts may help us keep our thinking clear. Many basic principles of vocational education are as fundamental today as they were a quarter of a century ago. In some cases changing conditions demand certain shifts in emphasis—for example, the program of war production called for more stress on highly specialized training than was needed previously It seems wise, therefore, that there be a constant re-examination of guiding principles and concepts in the light of current events and emerging trends. The following principles and concepts are submitted for examination and evaluation.

"IN WARTIME, THE WAR EFFORT COMES FIRST." The United States Office of Education Wartime Commission adopted and set forth a number of principles relating to wartime objectives for education [1] The Commission stressed

[1] See *Education for Victory,* Vol 1, No. 1, 1942, p 6

the point that "war service comes first" It elaborated by calling attention to the fact that it is to be remembered, when this principle is applied, that many peacetime objectives are also valid for the war effort—for example, that "every person on completing his education should be equipped to do some useful work."

The Commission held that the term war service should be interpreted broadly enough to include service in the armed forces as well as in essential civilian occupations, including war production and such services as those related to health, safety, and public welfare Among the specific ways in which the schools can contribute are training and making available the workers required, producing goods and services needed, increasing available manpower by correcting educational deficiencies, and conserving materials.

In general the view was taken that "war-related educational services should be accorded a high degree of priority among competing claims on the public interest and the nation's economic resources" In accordance with the principle stated, industrial arts departments in schools embarked upon an extensive program of making youth air-conscious through the study and construction of model airplanes, the identification of aircraft, and the many problems in connection with aircraft design, construction, operation, maintenance, and repair.

Vocational agricultural schools intensified instruction dealing with one of our most vital industries—food production. In home economics problems of family living, health, nutrition, home management, child care, and the conservation of food and clothing were stressed. In distributive education sales persons were instructed to give service in line with prevailing policies. In the area of trade and industrial education new and essential projects, such as the construction of tools, machines, jigs, fixtures, instruments, scale model planes, cots, and stretchers, replaced less essential schoolshop projects.

THE POSTWAR PERIOD. In the postwar period, reconversion training should have priority. Just as millions of adults were given short, intensive training to speed the

process of labor conversion from peace to wartime production, so the task of reconversion from war to peacetime activities must be met. Although an appreciable number of persons will go back to former jobs, hundreds of thousands are faced with changed conditions that call for reconversion training of many types

To meet war demands, industrial capacity, production, and the labor force were increased to high levels After the war the consumer demands of civilians will receive relatively more attention It is probable that new discoveries, improvements, and other changes will open new avenues of progress and will call for many kinds of vocational education service

Our ability to maintain full employment for all will be an important factor in our ability to meet high tax burdens. Since vocational education helps to make workers employable and efficient, the relationship between vocational training and standards of living in the postwar era is quite obvious.

It is realized that our winning the war will not settle many social-economic problems and that vocational education will be faced with many problems growing out of hemispherical and global relationships

THE CHIEF FUNCTION OF VOCATIONAL EDUCATION The chief function and purpose of vocational education are to prepare each individual for profitable, socially useful employment In Chapter 1 of this book the nature, meaning, and scope of vocational education were brought out. Vocational education has a number of functions, but the heart of the program centers around preparation for essential work In spite of occasional weak spots the federally aided program of vocational education represents an extensive, carefully planned, and conscientiously conducted effort to help men and women earn livelihoods in vocations of their own choosing

The task of making vocational education available to all who can profit by it is huge. It involves grave responsibilities On the one hand, there should be an adequate labor supply for all essential types of jobs, on the other, the schools share with other groups the responsibility of avoid-

ing an oversupply of workers in any vocation In times of extensive and rapidly changing domestic and foreign events the task is not easy.

REQUIREMENT OF OUTSTANDING SKILL. Occupational competence is a basic requirement for vocational teachers. The skilled crafts and occupations in all branches call for unusual skill of execution, in addition to related knowledge and occupational judgment Many state plans for vocational education specify that teachers of agriculture, business, home economics, and trade and industrial subjects have extended occupational experience in the particular area in which they wish to teach. For example, a person should not expect to be certified as a teacher of aircraft maintenance and repair on the strength of trade experience on automobile engines.

In some places vocational competence is determined on the basis of documentary evidence such as certificates of apprenticeship and letters from employers One difficulty with this policy is that many persons do not have and cannot get the documents Sometimes they have been lost or destroyed, or former employers may no longer be living or cannot be located Even if procurable, such records are sometimes misleading

Another plan for determining occupational competence consists in having applicants fill out an application form which is so worded as to reveal the nature and scope of the candidate's occupational experience. This application is notarized and is sworn to by the applicant as being a true and correct statement. If the sworn application meets the standards of the state plan for vocational education and those of the prospective employing board of education, the candidate is given a comprehensive trade or vocational test. The test should include written questions or problems, a performance test of considerable duration, and an oral test if desired. When such vocational tests are given by competent examiners, the results are satisfactory and as a rule more reliable than paper credentials

THE NEED FOR PROFESSIONAL TRAINING. Professional training (meaning instruction in the arts and sciences of teaching) is as essential for vocational teachers as for those

of general education. Although it is true that vocational competence is a fundamental requirement for vocational teachers, it is also a truism that professional training is as greatly needed in the realm of vocational education as in nonvocational fields. It is one thing for a person to be skilled in an occupation and another to teach others what he knows and to do what he can do Furthermore there are differences in teaching young people of high school age and adults.

In vocational education the teaching content varies constantly because of changes in the occupations. Consequently teachers must be able to analyze their occupations and to develop new instructional material Course contents must be determined, individual instruction sheets need to be developed because the nature of the instruction is such that much of the teaching is best done on an individual basis; and group instruction must be planned.

Prospective vocational teachers are taught how to plan school laboratories and shops, how to arrange equipment in the best manner, how to order equipment and supplies, and how to manage classes in laboratories, shops, classrooms, and elsewhere Fundamental laws of learning and of teaching are studied, and familiarity with many different ways of teaching is obtained Teaching methods are teachers' tools and a variety is needed

STUDIES AND SURVEYS Constant inquiries, investigations, studies, and occupational surveys are needed to determine current needs in vocational education. The structure of the world of work undergoes constant change Occupational truths of yesterday may not hold for today. It would be most unfortunate to train persons for jobs that will not exist and in skills they cannot use to advantage. Consequently not only local but also areal, state, national, and even global studies and surveys need to be made constantly.

In this connection it should be recognized, however, that, in the main, skilled occupations and some others usually have a core content that remains relatively constant Improvements in tools, machines, and materials occur, but they can be largely met through growth or improvement of workers, either during or after their formal school training.

In spite of constant changes in occupations the fact is incontestable that one who learns a skilled occupation is more adaptable to related lines of work and can be brought to production capacity in them faster and at less expense than the person who does not have such broad foundational training Therefore it is a serious mistake to think that rapid occupational changes make thorough, broad, occupational education unnecessary.

ADVISORY COMMITTEES. Boards of education and those engaged in vocational education need the advice and cooperation of advisory committees in order to determine the direction, nature, and scope of vocational education The United States Office of Education has as one of its many important functions the provision of advisory service to the states and territories. Leadership in education is clearly a responsibility in which the federal government has a share, for the schools have been defined as "the agency of society created to perpetuate and improve society" Such a major responsibility calls for action on a national basis and involves state and local cooperation.

Similarly, the several state departments of education have the duty of supplying advisory service not only to the local communities of the state but likewise to the United States Office of Education. There is also the need for securing advice and cooperation at the local level To facilitate reliable advice from federal, state, and local sources, federal and state educational authorities are urging strongly that carefully selected, representative advisory committees at local, state, and federal levels be used.

To select and use advisory committees in ways that will bring maximum help and cooperation for the schools calls for a large measure of sound judgment and leadership ability on the part of administrators of vocational education

CONTACTS WITH COMMUNITY In addition to the full use of advisory committees, vocational schools need other community contacts. In agricultural education there must be extensive contacts with farmers; in distributive education with distributors; in homemaking with housewives; in trade and industrial education with employers, labor unions, and

workers. Parents and parents' organizations, social and welfare workers and their organizations, and other groups and individuals can be helpful in making the schools of maximum service.

The task of keeping the schools in intimate touch with community life should be shared by teachers, supervisors, and administrators Definite policies and plans for community contacts need to be worked out to prevent duplication of effort and misunderstanding and to increase the benefits that are possible through right procedures. Teachers as well as administrators may, for example, be given a free hand to work along certain lines in harmony with policies that are clear to them When new policies are involved they should be referred to policy makers.

Vocational teachers need first-hand contacts with the world of work They are necessary in order to keep their instruction up-to-date. It would seem wise not only to encourage teachers to make community contacts that will be helpful to their teaching but to recognize such contacts as evidence of professional growth, and of what is expected of progressive teachers Since the contacts are often made outside of employed hours, due recognition on the part of administrative officers appears in order for such overtime service.

NECESSITY FOR JOB ANALYSIS. Job analysis is needed as a basic operation to determine teaching content One of the significant contributions to education has been made through leaders in vocational education who developed and introduced the technique of job analysis. The term job analysis appears to have been borrowed from vocational education, and is being used for procedures of quite different kinds.[2] More recently, Fryklund has warned against confusing trade and job analysis for training purposes, with "job descriptions, job specifications, organization and flow charts . . . analysis of mobility of workers and machinery studies."[3]

The Federal Board for Vocational Education pioneered in making job analyses. The first was an analysis of the related instruction for the machinists' trade. Dr. Charles R.

[2] Nicholas Ricciardi and Ira W Kibby, *Readings in Vocational Education*, p. 287.

[3] Verne C Fryklund, *Trade and Job Analysis*, p 26.

Allen, then special agent for industrial education, and Commander Frank Cushman, then federal agent for industrial education in the west central states, collaborated in this analysis, which was completed as early as December, 1919 [4] This study was soon followed by others Many of the analyses are in the nature of an inventory of what a worker in the occupation must do and what he must know in order to perform his work. This is not a course outline or instructional material, but is the basis upon which course-content may be determined and through which instruction sheets can be developed with assurance as to their functional value.

RELATIONSHIP TO ADJUSTIVE SERVICES. Close cooperation with adjustive services is required so that guidance, vocational education, and placement will terminate in effective preparation for essential work A distinction is made between, on the one hand, adjustive services such as those rendered by educational and vocational guidance personnel, teachers who help to modify the outlook, conduct, and occupational competency of students, clinical workers who render specialized services such as testing and diagnosing, and parents, who are certainly responsible for a share of the adjustment processes; and, on the other hand, referral agencies, such as the United States Employment Service There is need for a unitary outlook—one that sees general education, guidance, vocational education, placement, and follow-up service as an integrated, coordinated process to which each service makes a definite, important contribution.

Better guidance would contribute to better vocational selection, which would eliminate many persons not suited to given types of vocational education and thereby conserve vocational funds and training resources for others better qualified by interest and aptitudes It would also enable the vocational schools to prepare a higher percentage of trainees who would make good in the occupations they enter

Vocational guidance, try-out experiences, placement, and follow-up services deserve the fullest possible cooperation and support of teachers and others in vocational education

[4] *Theory and Practice, Outline of Instruction in Related Subjects for the Machinists' Trade*, Bulletin No 52

THE NEED FOR SUPERVISORS TO BE MASTER TEACHERS Among the prerequisites for licensing supervisors and directors of vocational education should be the demonstration of ability as master teachers in the area of vocational education they propose to supervise or direct. Teachers appreciate supervisors and administrators who are outstanding in their field. They want to be supervised by persons who understand what vocational teaching involves, who are able to recognize superior vocational teaching when they see it, who can inspire them to do their best, and who will not fail to commend meritorious teaching.

Boards of education have the responsibility, through their superintendents, of selecting supervisors and directors of demonstrated ability rather than making the selection on a nonprofessional basis. Superintendents should be given a free hand in making recommendations to the board and should be held accountable for results

The progress of vocational education is determined in a large measure by the quality of its local leadership It is not necessary, desirable as it would be, for superintendents and principals of high schools housing vocational classes and departments to be experts in vocational education But it seems little enough to ask that they, with such assistance as they may call to their aid, recommend the appointment of thoroughly competent, experienced, and professionally trained supervisors and directors of vocational education.

NEED FOR HIGHER STANDARDS. The standards in vocational education should be as high as or higher than those of approved prevailing standards in the occupations concerned Many vocational schools have demonstrated that it is possible to attain with vocational students standards of workmanship that measure up fully to the exacting standards demanded in modern practice. Such quality performance is made possible through superior teaching. Each step is carefully analyzed, taught, and checked Quality comes first, speed follows in due time

Even though present standards of workmanship set by vocational schools are high, we should seek to bring them to still higher levels. Modern tools, more precise machines,

better materials, and improved techniques in teaching should make higher standards possible.

Coupled with greater skill of execution go improvements in design. The development of design in aircraft, automobiles, household appliances, business machines, and agricultural machinery illustrates modern trends. Exhibits of vocational school products show similar progress in applied design and quality of execution.

NEED FOR REAL JOBS. Vocational education can be given best through jobs that are real, essential, representative, and challenging. Vocational education must not only be kept in line with occupational progress, it must also contribute toward progress. In progressive programs of vocational education only such experiences should be included as can be justified in terms of demonstrated needs in the vocations concerned. The occupational experiences taught should be such as are likely to be of maximum help under actual job conditions. The slogan is "Learn through doing."

As a starting point, major emphasis may well be placed on the core content of the occupation—the part that is basic, that changes least, and that is most in demand. The projects or jobs used for training purposes should be real and challenging. Since interest contributes to effective learning, instructors will do well to develop interest by calling attention to the purposes and values of the projects or jobs that are undertaken. Even the common laborer who pushes a wheelbarrow on a construction job should be made to feel that he is rendering necessary service and that he is participating in a worth-while project. He, too, should share the joys of accomplishment and be glad that he can help in real work.

EMPLOYMENT EXPERIENCE VALUABLE. Practical job experience under actual employment conditions is needed to round out vocational training. There is general agreement among leaders in vocational education, employers of skilled workers, and labor leaders that the pre-employment training given in all-day vocational schools needs to be supplemented by work on the job. Since conditions of employment vary greatly, a variety of procedures is used to meet that

requirement. In some instances vocational school curriculums call for one or more years of pre-employment training followed by one or more years of part-time cooperative education Another plan is to give supplementary vocational education to workers through part-time classes operated, for example, for four hours a week during working hours.

A third plan is to provide supplementary or up-grading training through evening school classes commonly attended for two evenings a week, two hours each evening. A fourth plan consists in continuing vocational training after the trainee is employed by grouping his vocational instruction in the slack season. This plan is suited to occupations having distinct slack seasons, such as the building trades in northern climates.

VOCATIONAL EDUCATION FOR MANY Vocational education is for all who can use it for family, state, and national welfare. Up to July, 1940, the major effort in vocational education of less than college grade had been placed on training for the skilled vocations. When the war-training program was launched, a sharp swing toward highly specialized training resulted. Although no one can predict with certainty what changes the future holds in store, it seems reasonable to anticipate a broadening of the total program of vocational education in ways that will help our goal of full-time employment for all. Such expansion is likely to mean that semi-skilled workers in large numbers, as well as skilled ones, will benefit through vocational education that is suited to their special requirements

FITTING CURRICULUMS TO NEEDS The traditional academic curriculum is unsuited to 75 per cent of high school youth Several extensive studies of youth, such as those undertaken in Maryland and the Regents' Inquiry in New York, show conclusively that youth needs a combination of good general education and vocational education. This finding is not new In fact the development of practical arts as well as vocational education arose out of the feeling held by many that the prevailing education of the time was too largely bookish.

The strides that are being made in providing vocational

education as one means of better fitting curriculums to the modern requirements of youth may be judged from the following data.[5] In 1920 the total enrollment in federally aided vocational classes of less than college grade in the United States was about 265,000 By 1930 the total enrollment was slightly over 1,000,000. Ten years later, in 1940, approximately 2,300,000 persons were enrolled. The last figure does not include vocational training for national defense.

NEED FOR LABOR SUPPLY An adequate, efficient, and resourceful labor supply is vital to our national welfare Since several years of training and experience are required to fit persons for many essential jobs, forecasts as to the nature of the job and the extent to which workers are needed are necessary in order that persons may be available when needed. Our national all-out effort in production and war service revealed bottlenecks in the labor supply that definitely slowed down production In some occupations the ratio of demand to supply was at least as high as 80 to 1.

Something has already been said about the advantages of having a large group of broadly and thoroughly trained skilled workers from which specialists can be drawn or developed on short order. A supplementary procedure is to improve present machinery for forecasting labor needs over longer periods of time. This service may call for the cooperative effort of federal, state, and local groups Among them would appear to be the United States Employment Stabilization Service of the United States Department of Labor, the War Manpower Commission, the United States Office of Education, state boards for vocational education, and local boards of education. The responsibility for developing resourceful workers should be shared by the workers, the schools, labor organizations, employers, and government.

PLACE OF TRAINING. In the main, training has to be taken to places where people live and where training resources are at hand so that trained workers will be available where needed The investment in buildings and equip-

[5] *Digest of Annual Reports of State Boards for Vocational Education to the United States Office of Education*, Table II, 1942, p 2

ment for vocational education in the United States may currently approximate $2,000,000,000 Such an extensive investment deserves to be used as fully as possible. It would be impractical to attempt to provide extensive housing and equipment for vocational education wherever needed. Much can be saved through first using available resources as fully as possible Many times the interests of individuals and the nation are served best by training persons for jobs that do not exist in the community where the training can and should be given

DESIRABILITY OF LARGER SERVICE AREAS. Larger units of administration are needed in many places for vocational education. As mentioned in the preceding chapter, there appears to be rather general agreement that larger units of administration for vocational education would bring to many localities vocational education opportunities superior to those now enjoyed These could be realized in some instances at unit costs below those typical of smaller units of administration.

School districts which are smaller than townships are found in the majority of the states and need to be extended or made part of some more desirable larger unit The battle for larger units of administration in education has been long and is still in progress

NEED FOR VARIED LENGTH OF TRAINING. Vocational education should continue until the trainee can secure a job, hold it, and progress satisfactorily in it. Job requirements differ so greatly that it would be very unwise to specify a uniform length of training for all occupations, even for skilled ones The vocational schools may reasonably be expected to give sufficient training in the groups of courses or curriculums they offer as will make employable the trainees who complete them

Furthermore, within the financial resources at their disposal, vocational schools may be expected to give training on either a full-time or a part-time basis that will enable persons to make satisfactory progress in their chosen jobs The problem of retraining adults who have become unemployed or are about to become unemployed through

technological change or other factors beyond their control should be met squarely. The policy of making it possible for all able-bodied persons to work is in the American tradition. Vocational education helps to make it possible for men and women to be self-respecting and self-supporting.

PRODUCTION OF A USABLE PRODUCT. Just as the successful manufacturer turns out a product that the public will use, so vocational schools should train persons whose services are usable. There is neither virtue nor wisdom in expending public funds for vocational education that is not in demand. The social worth of efforts in vocational education is measurable in terms of how well they meet the current demands for trained workers The chief products of vocational schools, the personnel that is trained in them, must be measured by the yardstick of utility.

Evidently vocational schools are doing a satisfactory job. How could we otherwise explain the strong development of vocational education? In school districts of 10,000 or more population, vocational and trade high schools increased approximately 38 per cent in four years [6]

ENCOURAGEMENT OF FLEXIBILITY. Federal vocational education laws and state plans encourage flexibility. An examination of the federal vocational education acts and evaluation of experience under them reveal that the laws dictate to no state and leave to every state an ample measure of flexibility. The federal laws were purposely drawn up to encourage the states to promote such forms of vocational education as they need, to raise standards, and to adapt programs to changing requirements The beneficial effects of the provisions of the federal vocational education acts may be seen when the advances made in commercial education, which was widely established in the United States when the Smith-Hughes Act was passed in 1917, are compared with those in other forms of vocational education, such as agricultural, home economics, and trade and industrial education. Under the federal laws and with cooperating state and local participation the latter three types have far

[6] United States Office of Education, *Statistics of City School Systems, 1937-38*, p 29

outstripped vocational commercial education in relative progress and development. This fact was one of the reasons for making federal aid available for distributive education under the George-Deen Act of 1936

Through the federal acts the responsibility for specifying the kinds of vocational education for which it is proposed to use federal funds, the kinds of schools and equipment to be provided, the types of courses to be offered, and the qualifications of administrators, supervisors, and teachers rests with the states, subject only to the broad provisions of the basic federal acts.

TRAINING YOUTH IN LINE WITH INTERESTS. Youth should be trained in occupations in which they have real interest and for which they have aptitudes. In certain areas there is still too much of a tendency toward limiting the vocational education of youth to such instruction as is available locally Young people should not be kept on the farm or in the city if they can do better elsewhere It is not necessarily best for them to follow the occupations that are found locally Their greatest usefulness may be in occupations that are new, emerging, or even unborn.

Within the short span of ten years distinct occupational changes occur It is tragic to insist upon young people following in the occupational footsteps of their fathers for no better reason than what was good for the father ought to be good for the son.

Rural adults, and particularly rural youth, need more variety of opportunity in vocational education All signs point to the greater industrialization of rural life in the years immediately ahead.

IMPORTANCE OF OPERATING EFFICIENCY. Vocational instruction should be organized, modified, or discontinued on the bases of essential needs, services rendered, and operating efficiency Sound business principles hold for vocational education as well as for business enterprises. It is not to be inferred that, because vocational education as a state or national activity is highly valued, all classes and schools are doing high grade work. Every class, school, and local program deserves public support or disapproval, depending

upon such factors as have just been mentioned Every state program of vocational education is accountable through its state board for vocational education to the state legislature The Congress of the United States keeps a watchful eye upon every federal agency that is operated with the aid of public funds

INSTRUCTION IN SAFETY. Occupational safety, hygiene, and health instruction help to protect and conserve human life. In addition to the general foundation training that all young persons should receive as part of their general education, vocational schools should assume the responsibility of supplementing each kind of vocational education with occupational safety, hygiene, and health instruction appropriate to the vocation involved. Written, oral, and, where needed, performance tests in the proper practices need to be given so that mastery of the knowledge and skills required can be reliably determined

NEED FOR BROADER BASE Vocational education is needed for semi-skilled, as well as for skilled, occupations. The economic advantages of carefully planned, properly given instruction to trainees in semi-skilled as well as skilled jobs are so generally recognized by students of production costs that we shall not attempt to develop them here Let it suffice to say that any all-out effort to win economic security and to perpetuate it would appear to call for appropriate vocational education for semi-skilled as well as for skilled workers.

The task of providing training on such a wide basis is thoroughly feasible. It can be done by using the combined resources of the community—those of employers, labor, the schools, homes, and places of business and of such other occupational activities as are locally carried on In addition there would be a larger measure of state aid and considerable more federal aid than is now available

RIGHT USE OF MAN POWER. So far as our knowledge and observation go, leaders in vocational education should be, and are, keenly interested in the best possible use of the training resources at their command. Upon rare occasions

complaints have been made by individuals or by groups that trainees in certain vocational schools or classes have been exploited in one way or another—for example, by keeping a trainee working at a machine after he has learned how to operate it effectively, by stressing production at the expense of instruction, or by using trainees for work not in line with their curriculums. Constructive criticism is often helpful and is usually welcomed by directors of vocational education. For example, when a director of vocational education in a city operating an extensive program was told that a complaint had been registered to the state department of education to the effect that some of his boys were being exploited in industrial establishments, he said, "I am glad to hear that. We are doing our best to give those boys the best training possible. If we can get help in that we shall welcome it."

State and local administrators of vocational education need to be on guard against unscrupulous persons who will not hesitate to exploit trainees—especially the "fly-by-night" type who come into a town with big promises, operate as long as they can with such special concessions as they are able to secure, and then pull up stakes and go

HIGH COSTS, GREAT BENEFITS. Vocational education costs much and is worth more than it costs It should not be expected that vocational education will be cheap. The investment in housing, equipment, materials, and supplies is considerable The instructional and administrative staffs usually command relatively high salaries. Furthermore, classes must often be smaller in the practical areas of teaching then in general academic education. The relative costs of instruction in different kinds of schools in cities of 10,000 or more population are shown approximately in Table 4

Since the social-economic values of vocational education were presented at some length in Chapter 6, it is unnecessary to elaborate on them here

APPRENTICESHIP OLD, YET NEW. Apprenticeship deserves whole-hearted support from employers, labor, schools, and trainees. There are social institutions such as the family, the schools, and the churches that have long had and will long continue to have important places in our lives.

*Table 4*

EXPENDITURE PER PUPIL IN AVERAGE DAILY ATTENDANCE FOR INSTRUCTION IN VARIOUS TYPES OF SCHOOLS IN SCHOOL SYSTEMS OF CITIES HAVING AT LEAST 10,000 POPULATION, 1928 AND 1938*

| Type of School | Expenditure in | | | | Increase, 1934-38 | |
|---|---|---|---|---|---|---|
| | 1928 | 1930 | 1934 | 1938 | *Amount* | *Per Cent* |
| Kindergarten | $ 55 16 | $ 54 93 | $ 47 01 | $ 53 75 | $ 6 74 | 14 3 |
| Elementary† | 67 66 | 69 01 | 59 98 | 73 72 | 13 64 | 22 7 |
| Junior high school | 89 58 | 93 95 | 77 56 | 89 64 | 12 08 | 15 6 |
| Senior high school; Junior-senior high school; Regular 4-year high school | 121 29 | 122 35 | 90 81 | 101 99 | 11 18 | 12 3 |
| Vocational and trade high school | 171 44 | 189 21 | 135 53 | 149 92 | 14 39 | 6 2 |

* *Biennial Survey of Education in the United States, Statistics of City School Systems*, 1937 38, p 28

† Does not include special schools for 1934.

Apprenticeship is such an institution. It is as old as the hills and as new as tomorrow's newspaper. It survives persistently through generations. Some persons thought it was buried for all time when ancient Rome and the empire of the Caesars was destroyed in A. D 476. Such, however, was not the case. Apprenticeship is active and growing

The Michigan State Board of Control for Vocational Education defines apprentice in the following manner in its plan for apprentice training.[7]

> An apprentice, as understood in this plan, is a person 16 years of age or over, who has entered upon an organized program of training with a written agreement approved by his employer, parents, and the local school authorities, which provides for his employment and his participation in an approved program of training 2,000 hours or more in length

The benefits of apprentice training are set forth by the Michigan State Board of Control as follows:

1 The well and broadly trained worker is the last one to be laid off when times are dull in business

[7] *Apprentice Training*, Bulletin No 231, the State Board of Control for Vocational Education, Lansing, Michigan, p 8

2. The all-round training the individual receives qualifies him to perform many jobs and operations, hence he can be easily shifted from one position to another within the concern employing him
3. With a diploma of graduation from a genuine apprentice course, the applicant for a position will more easily secure employment with some other firm, even if in a distant city or state.
4. The more thorough and broad training which the apprentice receives will provide an escape from the dull monotony which falls to the lot of the worker skilled in only one operation.

Danger of Waiting too Long. Vocational education should not be deferred too long. Youth should have a combination of general and vocational education before entering employment Specific vocational pre-employment training is known to make persons more employable and to aid their vocational progress. In view of the lengthened period of compulsory, full-time school attendance and the difficulties often met in obtaining employment before 17 or 18 years of age in urban centers, there is danger that work experiences of the manual type will be deferred too long.

For skilled occupations two or three years of specialized vocational education are necessary before young people complete the full-time schools and go to work. For many who are likely to enter highly specialized jobs a similar thorough background in vocational mathematics, related science, related drafting, and definite training in vocational skills is likely to be helpful Young people who are able to get occupational training before 18 years of age, as do many in homes in rural districts and in some instances in cities, have something for which they have reason to be grateful.

Better Understanding a Help. Administrative and supervisory officers in general education need to understand vocational education. Some of the progress being made in vocational education may be traced to the fact that an increasing number of administrative and supervisory officers in general education have become familiar with vocational education and are giving it their hearty support.

In some instances persons who have specialized in vocational education are employed as administrative officials having both general and vocational education responsibilities. This is a salutary practice. Vocational education

leaders who become state superintendents of education, superintendents of schools, deans of schools of education, and high school principals are often able to do more for the advancement of vocational education in those positions than in their former, more specialized jobs They often bring to such jobs points of view, experiences, and techniques helpful to general education.

TERMINAL TRAINING IN DEMAND. In general, more technical knowledge is required by workers in modern industries, those on the farm, business people, and homemakers, than ever before In response to this trend many junior colleges are swinging away from the traditional college preparatory training to terminal training, both general and technical.[8] Many leaders in the field of secondary education hold the view that the time is at hand to expand the high schools beyond the present eleventh or twelfth grade by adding terminal courses of varied length

An appreciable number of states are conducting terminal technical training of a vocational character, using Smith-Hughes or George-Deen funds. Some of these courses teach the fundamentals of junior technical occupations; they equip persons to serve as technicians, service men, junior assistants in laboratories or to engineers, architects, and production supervisors.

Vocational-technical courses are of less than college grade if they meet the following requirements [9]

1. College entrance requirements are not a prerequisite
2. The objective is to prepare for advantageous employment in industry.
3. The training does not lead to a degree.
4 The program is not required to meet college course requirements
5 Shop and related subjects instructors qualify under the state plan for vocational education

SERVICE AND UNITY AS GOALS. The vocational education movement in the United States bids fair to grow in strength, articulateness, and influence as long as workers in all

[8] Louis E Engleman and Walter Eells, *The Literature of Junior College, Terminal Education*

[9] Office of Education, *Statement of Policies for the Administration of Vocational Education*, Vocational Education Bulletin No 1, p 53.

branches of vocational education keep public service as their major goal and continue to work cooperatively through their several state vocational associations and the American Vocational Association. From experience since 1906 and particularly from observation of the beneficial effects of combining agricultural, business, homemaking, and trade and industrial education in one unified, strong national association with affiliations in all the states and territories, the conclusions may be drawn that teamwork has paid and that service and cooperation are dependable planks in the platform for future action

WORLD OUTLOOK. The United States has become an integral part of a new world order Vocational education benefits from local interest and initiative, state-wide administration, federal cooperation and aid, and a global outlook The organization, operation, and improvement of vocational education are not matters of local or state leadership, nor of state or federal control, but definitely of local, state, and federal cooperative effort in which each agency performs its functions in accordance with policies and plans that have been developed cooperatively Each one of the administrative units mentioned can perform certain duties better than can the others. Integration of effort for the best interests of all is the goal.

## *FOR DISCUSSION*

1 What is meant by reconversion training?

2 Mention a number of advantages in the national economy that provides full work for all

3 Distinguish between professional training for teaching and that for engineering

4 What are the chief reasons for having advisory committees for vocational education?

5 Explain what is meant by adjustive services

6 What are the chief arguments in favor of requiring supervisors and directors to be master teachers?

7 Present arguments for or against having standards in vocational education higher than prevailing standards in the occupations

8 Give the chief arguments for and against teaching vocations through real jobs.

9 Describe in detail one or more plans that combine school instruction with employment experience

10 How can school curriculums in high schools be modified to suit a larger proportion of students?

11. Explain in detail how an adequate labor supply may be determined for the United States

12 Compare the advantages of training workers where they live and have educational facilities as compared with setting up new facilities where they are to be employed

13 Discuss the advantages of the county as compared with a regional unit made up of parts of several counties for giving vocational education

14. What are the chief advantages of offering youth the opportunity to obtain several years of vocational education before leaving the full-time schools?

15 Present evidence for and against determining the training content in vocational schools on the basis of local community needs.

16 Suggest how to determine the length of vocational training programs for semi-skilled workers.

17. Tell how the unit cost of vocational education may be kept relatively low without sacrificing quality of instruction

18 Give several reasons why vocational schools should cooperate in giving apprenticeship training

19. At what age or in what grade should vocational education be begun by those who do not expect to go to college?

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## CHAPTER 8

# *Federal, State, and Local Policies and Plans for Vocational Education*

POLICY MAKING A COOPERATIVE FUNCTION. One cannot read the foreword of Vocational Education Bulletin No. 1 without recognizing the fact that the United States Office of Education has set a good example of the way to develop policies for the administration of vocational education.[1] Cooperation is the key word in the procedure followed from start to finish. As one looks into the ways in which certain state departments of education and local units of administration develop operative policies for their respective areas of service, one is forced to conclude that democratic procedures are functioning, not perfectly by any means, but with gratifying effectiveness.

The state of California is to be commended for the provisions in its state plan which require instructors in approved vocational classes to be familiar with the federal and state vocational education acts, with Vocational Education Bulletin No. 1 of the United States Office of Education, and with its own state plan for vocational education. No doubt other states follow such a policy whether specifically mentioned in their state plan or not. In formulating its policies for vocational education the United States Office of Education indicated that it might change its policies as changing conditions and experience show the need for doing so.

FEDERAL-STATE RELATIONSHIPS. The *Statement of Policies* makes it clear that the Smith-Hughes and the George-Deen Acts leave control to the states: "Under these acts the Federal Government does not propose to undertake the organization and direction of vocational education in the

[1] The fundamental policies for the administration of vocational education at the federal level have been worked out carefully and cooperatively. They are issued as Vocational Education Bulletin No. 1, *Statement of Policies for the Administration of Vocational Education*, Revised, 1937, United States Office of Education. Pages 1-43 have been drawn on heavily in this chapter.

States, but does agree to make from year to year substantial financial contributions to its support."[2]

There are definite promises of cooperation between the states and the federal government, through the Office of Education, "in fostering and promoting vocational education and vocational teacher-education" The Office of Education states that it "conceives its responsibility under the act as being that of providing services to the States in the fields of vocational education"

Administrator Paul V. McNutt in an address given at the annual convention of the American Vocational Association in Boston expressed himself as being in favor of liberal grants-in-aid to the states for educational purposes Touching upon state control, he said, "I am convinced that the established educational agencies of the states can, if properly financed and administered, provide all necessary services for the education and preparatory training of youth and that they will do it more efficiently and adequately than can any other agency."[3]

PUBLIC SUPERVISION AND CONTROL. All vocational education aided under the Smith-Hughes and the George-Deen Acts must be under public supervision and control This is the case when:[4]

*a* The school or class is under the supervision and control of a State or local board responsible for the expenditure of public funds for vocational education in the State or community.

*b* The school or class is legally a part of the public school program of vocational education as administered by the State or local board responsible for vocational education.

*c* The teachers are paid from public education funds in the same way followed in the payment of other public school teachers employed by the State or local board responsible for vocational education

*d*. The school or class is administered, controlled, and supervised in all details by officials on the staff of a State or local board responsible for vocational education, including—

1. Selection, salaries, and length of term of the teachers
2. Qualifications and admission of the pupils.
3. Content and organization of all courses and curriculums.

[2] *Statement of Policies for the Administration of Vocational Education*, p 5

[3] *A V A. Journal and News Bulletin*, February, 1942, p 7

[4] *Statement of Policies for the Administration of Vocational Education*, p 29

Under certain conditions federally aided vocational schools and classes may be conducted within a private industrial plant. The requirements are. (1) the program must be under public supervision and control; (2) there must be a definitely organized plan of instruction that will provide adequate knowledge and occupational skills; (3) the program must meet all the requirements of the state plan for vocational education; (4) plant activities and instruction must be separated; (5) persons may be paid as instructors only if they devote their time to approved teaching; (6) the instructors must meet the teacher certification requirements set up in the state plan, and their records must be on file in the state office, and (7) the state office must have evidence that the program has been adequately supervised [5]

MANDATORY AND DISCRETIONARY REQUIREMENTS. The Smith-Hughes Act of 1917 is the organic act. The basic requirements of the act constitute mandatory conditions and establish standards that must be enforced The George-Deen Act is patterned in the main upon the basic framework of the Smith-Hughes Act and varies from it only in certain specified ways The legal requirements of both acts, which were discussed in Chapter 5, form the basis for the mandatory standards that must be enforced by federal, state, and local administrative personnel

Discretionary standards are incorporated in state plans for vocational education and in local plans as submitted to the state offices. However, these standards, in the form of state plans for vocational education or amendments thereto, are submitted for approval to the United States Office of Education through the state directors of vocational education or other administrative officers representing the state board for vocational education. The state plan, therefore, contains certain standards and includes requirements that are mandatory and probably also provisions that are discretionary. To determine into which category a given provision or standard falls, it would be necessary to check it against the federal acts and the policies of the United States Office of Education, most of which are found in the policies bulletin to which references have already been made

[5] *Ibid*, pp 55-6

CONDITIONS UNDER WHICH FEDERAL FUNDS MAY BE USED In order to determine whether a vocational school or class may be aided from federal funds, the following four factors are examined:

1. Is the school legally qualified in accordance with one or more of the federal vocational education acts?
2. Is the program in agreement with the state plan for vocational education?
3. Has state supervision and inspection been properly maintained?
4. Have the expenditures been made for which reimbursement is sought?[6]

A state board for vocational education is expected to assume the responsibility for the proper expenditure of federal vocational education funds, this duty may not be delegated to any other agency. The assumption is that the state board for vocational education was chosen to administer the act because it was deemed competent to render that service better than any other state agency [7]

No provision is made in the Smith-Hughes Act to pay either salaries or traveling expenses of members of the state board for vocational education

FUNCTIONS OF STATE BOARDS FOR VOCATIONAL EDUCATION. It is the responsibility of state boards of vocational education (including the territories and the District of Columbia) to prepare plans which reveal: (1) the kinds of vocational education for which aid is asked; (2) a description of the kinds of schools and the equipments to be used; (3) representative or type courses of study and curriculums; (4) information about the methods of instruction employed, (5) statements revealing the qualifications of the different kinds of vocational teachers to be employed. The plans, as was mentioned in a preceding chapter, are submitted to the United States Office of Education for approval.

Annual reports from the states to the Office of Education are due on or before September 1 of each year. The reports are of two kinds. (*a*) statistical and financial,

[6] *Ibid.*, pp 14-5
[7] *Ibid*, p 32

and (*b*) descriptive. They serve a number of purposes, such as providing data needed for congressional hearings, serving as a basis for federal budget estimates or for evaluating state effort and achievement, supplying data to governmental agencies on the extent of vocational education, and providing the essential facts for the *Digest of Annual Reports of State Boards for Vocational Education to the Office of Education, Vocational Division*, issued annually by the Office of Education

FEDERAL-STATE CHANNELS OF COOPERATION As a matter of sound policy, dealings between the Office of Education and schools or educational agencies in the states should be carried on through the state board for vocational education. In practice this means that the channel is from a local school board, director, or other person, through the state director of vocational education, to the assistant commissioner for vocational education in the United States Office of Education or a member of the assistant commissioner's staff—for example, a chief, a regional agent, a consultant, or a special agent.

Similarly, the agents of the Office of Education ordinarily do not deal directly with local persons, schools, or institutions but operate through the state offices. If service is given to schools it is done at the request or with the approval of a representative of the state board for vocational education Although the United States Office of Education reserves the right to inspect schools, as authorized in the federal organic act, advice, surveys, and other forms of professional service are given only when cleared through the proper channels Any other procedure would probably lead to confusion, misunderstanding, and overlapping of state and federal service.

RESPONSIBILITY OF EACH STATE FOR ITS OWN PLAN. Each state board for vocational education has the responsibility of formulating its own state plans for vocational education. In order to facilitate study and comparison, the states are asked to follow an outline or form. This request is far from a requirement of uniform plans.

In view of the differences in needs, resources, and prob-

lems that exist among the states, it would be unwise if not impossible, the Office of Education believes, to adhere to uniform state plans for vocational education Consequently each state is encouraged to use its resourcefulness in submitting plans that will be as helpful as possible in improving the services contemplated in each state

The Office of Education has made it plain that, although it reserves the right to approve or to disapprove state plans, "this authority does not imply authority to dictate or to initiate State plans in any particular."[8] Originally state plans for vocational education were submitted annually Since 1922 they have been requested at intervals of five years Modifications in state plans, sent in as amendments, may be submitted for approval at any time.

SAFEGUARDING FEDERAL APPROPRIATIONS There are several ways in which the proper expenditure of federal grants-in-aid are safeguarded The precautions include. (1) the funds are handled by the state treasurer, who must give proper account of all moneys received and expended; (2) the state must make good all loss incurred through any means, including misappropriation, theft, and other losses, (3) the specific requirements of the federal acts and the standards included in the acts and in state plans help to safeguard the proper expenditure of the funds, and (4) federal aid is given in the form of reimbursement for expenditures that have actually been made and that have been audited and checked by local, state, and federal personnel.

A decision has been rendered by the comptroller of the treasury to the effect that federal funds deposited with state treasurers in accordance with the requirements of the vocational education acts are funds of the United States The government retains title to these funds until they are legally disbursed Interest earned on the funds belongs to the United States[9]

ADMISSION REQUIREMENTS. Definite admission requirements for all vocational classes are set forth in the federal

[8] *Ibid*, p 13

[9] *Ibid*, p 16.

acts, in state plans, and in local regulations. Any local school district may, if it desires, have standards and requirements that exceed those in the state plan and the federal requirements Federal and state aid is not available for programs that fail to meet the minimum set forth in the state plan.

The minimum entrance age requirements for all-day vocational schools (14 years) and evening schools (16 years) are lower than those in common practice. The difference may be readily understood in view of the fact that the Smith-Hughes Act was passed in 1917, at a time when in some communities as many as 50 per cent of boys and girls between 14 and 16 years of age left all-day schools to go to work.[10]

Admission standards and requirements need to be worked out carefully with the aid of advisory committees and in the light of state and nation-wide occupational needs and to be revised from time to time. Vocational teachers as well as directors should share the task of making sure that all students meet the prevailing requirements Time spent in individual conferences at the time of enrollment usually pays good dividends to all concerned

NEED FOR ADEQUATE EQUIPMENT. Under the federal vocational education act to which reference has already been made, the states and territories are expected to define their standards for plant and equipment and to see to it that the state, the community, or both furnish and maintain the necessary plant and equipment for all federally aided vocational schools.[11] It is the function of the state board for vocational education to make certain that equipment and supplies are adequate and to withhold state approval and reimbursement in case they are not satisfactory.

To avoid misunderstanding, the state office may ask school districts to submit applications for approval for new projects. Such applications enable inspection of plans and facilities and make it possible for state departments to foresee and plan for financial aid through budget estimates. If

[10] F Theodore Struck, *Foundations of Industrial Education*, p 169.

[11] This does not apply to vocational training for war production, which is aided from other funds

some such control were not exercised, the state might not be able to meet its share of the aid involved

As a means of assuring adequate school housing, some states require blueprints and specifications covering new structures and proposed alterations of existing ones to be filed for examination and approval and make it illegal to use public funds for schoolhouse construction or alteration not approved in advance

In some instances the most suitable equipment is to be found in industrial establishments and places of business, and on farms It is entirely satisfactory to use such equipment for instructional purposes as long as a genuine educational program is maintained under public supervision and control As a matter of fact, the vocational training resources outside of school walls ought to be used whenever it is advantageous and best to use them. Everyone knows the limitations of equipment found in schools. It may be excellent as far as it goes, but it is not and cannot hope to be representative of the facilities needed in thousands of occupations.

PROVISIONS FOR TRAVEL. Each state sets up lists of specific purposes for which it proposes to reimburse workers for travel expenses The general policies relating to travel are based on the provisions of (1) the Smith-Hughes Act, and (2) the George-Deen Act

Under the Smith-Hughes Act federal teacher-training funds may be used for reimbursing the travel expenses incurred by teacher-trainers and state and local supervisors, while on business of the state board for vocational education, under conditions covered in the state plan

Federal teacher-training funds may also be used "when the state board for vocational education calls a special conference for the improvement of vocational teachers in service."[12] No provision is made in the Smith-Hughes Act for reimbursing from federal vocational education funds expenses incurred by teachers attending institutes or conferences or conventions not called by the state board.

Under the George-Deen Act the same policies covering

[12] *Ibid*, p 18.

travel apply for teacher-training funds as under the Smith-Hughes Act. However, the George-Deen Act, as briefly mentioned in Chapter 6, goes further by making it possible, through provisions in state plans, to reimburse the travel expenses of teachers in given service areas performing such duties as surveying the need for vocational education, visiting prospective students, visiting farms and homes where home projects are conducted, following up and coordinating vocational education with industry, and other activities necessary to the development of vocational education [13]

The George-Deen Act also makes it possible to reimburse travel expenses of members of representative advisory committees when attending meetings officially called by the state board for vocational education The Office of Education has made it clear that this ruling permits "financing the travel to official meetings of (1) a State advisory committee for all phases of vocational education, or (2) not to exceed one State advisory committee for each of the major fields of vocational education, i.e , trade and industrial, home economics, agricultural, and distributive "[14]

QUALIFICATIONS OF TEACHER-TRAINERS The policies bulletin of the Office of Education points out that "an adequate supply of efficient teachers and supervisors of vocational education can be developed only by thoroughly competent teacher-trainers." To that end state boards for vocational education are asked to set up specific qualifications including practical working experience, technical education, general education, professional education, teaching experience in approved vocational schools, and supervisory or administrative experience

A committee of the National Association of Industrial Teacher-Trainers found that it was the judgment of representatives of twenty-three industrial teacher-training institutions that vocational industrial teacher-trainers should have at least 2 to 5 years of teaching experience in their field More than 60 per cent thought the minimum ought to be 5 years [15] The same study showed that vocational indus-

[13] *Ibid.*, p 19.

[14] *Ibid.*, pp 19-20 See also pp 30-1.

[15] *A V.A. Research Bulletin No 2*, pp 28-9

trial teacher-trainers have, on the average, more than 5 years of work experience

Provision of Effective State and Local Supervision. It is generally recognized that the strength of vocational education programs depends largely upon the ability, the professional attitudes, and the resourcefulness of the teachers and that the leadership ability and vision of state and local supervisors have much to do with the quality of teaching that is done Consequently it is not surprising to find that the Office of Education asks the states to include in their state plans a description of the supervisory program that is in operation or is to be maintained in each field of vocational education.

State plans must also show the qualifications that state supervisors and local supervisors are expected to have as minimum requirements for their jobs The informal up-grading of teachers in service is the responsibility of the local director of vocational education. It is a function that is slighted or even neglected in too many cases. In many instances the supervisor or director is able to render and does render such service excellently. In other instances this service is performed in part by vocational teacher-trainers cooperating with the supervisor or director

Experience indicates that a continuous, long-term program of improvement in service is needed in order that all professional personnel be developed to the point where they will render outstanding service over a relatively long professional career

George-Deen Funds for New Programs The Office of Education has pointed out that George-Deen funds are provided to expand and strengthen existing programs rather than to replace local or state financial participation in undertakings already in hand The states and territories are expected to show how these funds will serve the purposes mentioned. George-Deen funds may not be used to reduce expenditures previously met by Smith-Hughes funds.[16]

[16] *Statement of Policies for the Administration of Vocational Education*, p 28

PRORATING OF SALARIES. As a matter of general policy, the practice of using teachers part-time for vocational education and part-time for general education is discouraged There are instances where such a division of time is necessary. In such cases it is possible under federal policy to prorate salaries and ask for reimbursement on the portion devoted to vocational education For example, if a teacher spends half his time in vocational teaching and the other half in general education the school will be eligible for vocational aid on half his salary.

MIXED CLASSES NOT REIMBURSABLE. There are several kinds of mixed classes The term is used, for example, to describe a class in which some of the students are vocational and others are nonvocational, as would be the case if vocational trade or industrial students were combined with industrial arts students Another type of mixed class would be a combination of adults employed at a trade, such as tool- and diemaking, and others following a different trade, such as ship fitting, the whole group being taught advanced tool- and diemaking. A class is not mixed when all members fully meet the requirements described in the state plan for vocational education for the particular type of vocational education concerned.

Mixed classes are not reimbursable from federal vocational education funds in any area of vocational education.

In all-day schools all members of such classes are assumed to be following the vocation of their selection and to have progressed beyond the stage where they do not know what they want to do. The vocational education of students in vocational evening schools must be supplemental to the daily employment. If the instruction is clearly of the latter type, it is vocational in the meaning of the act and reimbursable.

MATCHING FEDERAL FUNDS WITH PUBLIC FUNDS. Under the Smith-Hughes and the George-Deen Acts the federal dollar may be matched by state or local public funds or by both, but not by private funds Consequently it would be contrary to the intent of the acts to permit a private individual or group to match federal funds However, this

prohibition would not prevent a person or a group from donating funds to a local board of education or a state board of vocational education If the boards are authorized by law to accept such donations or gifts for educational purposes the private funds then become public money.

It is the responsibility of federal, state, and local school authorities to make sure that the provisions and the spirit of the acts are not violated. The federal funds were intended to stimulate public, tax-supported, state and local effort and must be expended by public boards of education in strict accordance with federal laws and the approved state plans for vocational education.

There is, of course, a place for private funds and initiative in vocational education Much fine vocational education is sponsored privately It is regrettable that some private vocational schools exploit their students. All private as well as public schools should meet reasonable standards and, if they do not, should be required to meet them or to go out of existence

POLICY RELATIVE TO NONVOCATIONAL EDUCATION. The various state plans for vocational education indicate definite time allotments for practical vocational education and for related subjects which are also vocational in nature. Federal vocational funds cannot be used to aid nonvocational subjects such as history and English composition. However, the Office of Education is of the opinion that directors of vocational education and others responsible for the organization and administration of vocational education should try to get the cooperation and support of those responsible for general education so that young people attending all-day vocational schools will receive well-rounded instruction, such as will be helpful in meeting the needs of alert, informed, and resourceful citizens in our chosen form of government

SUPERVISION OF NONVOCATIONAL CLASSES. In every category of vocational education there are backlog courses such as general home economics and industrial arts education, which contribute toward and serve as a basis for vocational education It is of course the first responsibility

of a state board of vocational education to secure well-qualified state and local directors and supervisors of vocational education who will carry out effectively the vocational programs. If adequate provision has been made for that purpose such "qualified State or local supervisors may devote a portion of their time in the course of their regular work, to giving assistance to non-reimbursed schools or classes having or working toward vocational objectives in their respective subject-matter fields"[18] The foregoing interpretation is justified on the basis of the promotional responsibilities imposed by the Smith-Hughes and George-Deen Acts upon local, state, and federal persons responsible for the operation of the acts. The funds under the acts mentioned may not be used, however, to provide full-time supervision to nonreimbursed schools or classes.

When any state contemplates using vocational supervisors in the manner indicated, a detailed statement showing the extent of such service and the approximate distribution of the supervisor's time to be given to vocational and to non-vocational supervision must be included in the state plan for vocational education.

EQUIPMENT AND SUPPLIES. Smith-Hughes and George-Deen funds are not to be used for the purchase of equipment of any kind. By equipment is meant any physical object, exclusive of structures, which is expected to last for more than a year with reasonable use. For example, school furniture, tools, machinery, books, filing cabinets, typewriters, projectors, charts, and maps are classified as equipment, as are briefcases, cameras, drafting instruments, lantern slides, notebook covers, shears, account books, record cards, and bulletins. Many other items are likewise properly classified as equipment.

The term supplies is used to denote any material or article which is consumed through use and which has to be replaced in a year or less. Writing and drafting paper, pencils, pen points, ink, notebooks, sandpaper, emery cloth, cotton waste, lubricating oil, thread, glue, and paste are representative examples of supplies. Instructional supplies used in voca-

[18] *Ibid.*, p. 43.

tional teacher-training may be reimbursed in part from vocational teacher-training funds made available through the Smith-Hughes and George-Deen Acts Instructional supplies used in vocational education classes in the public schools are not reimbursed from funds under the acts mentioned When the classification of any item is in doubt, the state supervisor should be consulted

LEGAL ASPECTS OF PRODUCTION WORK. Under the name of the Milwaukee Experiment, John J. Metz has given highly useful information as to what is involved when a board of education contemplates accepting compensation for practical work done by students in public schools. The discussion centers around the problem of schools desiring to contribute to our war effort by using materials supplied by war industries for producing parts useful for war purposes.

If compensation is accepted by a board of education for work done on such material, the board is confronted with a series of difficulties because such action places the board in the position of engaging in private business for profit. The board would become liable for damages to persons and to property; it would have to comply with workmen's compensation, unemployment compensation, the federal wage and hour act, other federal or state acts, and city regulations governing working conditions and workers in manufacturing pursuits.

On the other hand, if no compensation is accepted, the employer-employee relationship does not exist. If the work is conducted in a strictly educational manner, with only properly qualified and duly certified instructors in charge, the situation is much less involved. Consequently the Milwaukee Board of Education gave authorization to the latter procedure.[19]

POLICIES RELATING TO ADMINISTRATION. In general, efficient school administration is best secured through nonpartisan boards of education. This statement holds true for boards at the local, county or area, state, and federal levels.

[19] *Industrial Arts and Vocational Education,* Vol. 31, No. 4, 1942, pp. 160-1.

Relatively small boards for vocational as well as for general education appear desirable Action can usually be secured faster through small boards.

The personnel of boards of vocational education should be selected carefully on the basis of the kinds of functions they are to perform and their fitness for them Boards of education need to recognize the difference between what a lay board should attempt to do as a body or as individuals and what should be carried out by a professionally trained administrator and his staff. For example, boards of education should elect teachers upon the recommendation of the local director or other qualified professionally trained administrator, not directly or independently of their chosen, professional administrator.

Other factors being equal, programs of school administration that are decentralized as much as circumstances warrant and that encourage local resourcefulness are most likely to arouse active local interest and support It is to be recognized, however, that cooperation and participation on the part of others who have had extended experience and can bring it to bear upon local programs may help them appreciably. Therefore it is usually wise for local staffs to keep in touch with leaders from other communities and representatives of state and federal offices

Some Suggested Local Policies. It is important that teachers be chosen with much care Their previous experience and training needs to be checked with special reference to their fitness for the job for which they are being considered. Teachers appreciate being told at the outset what is expected of them and what opportunities are likely to develop for growth and advancement.

It is considered desirable to have sound policies concerning school attendance, class and school-shop management, and participation in extra-curricular activities. It is likewise helpful to have definite policies with regard to the more serious disciplinary cases that may arise from time to time.

Relatively less important and yet significant are policies concerning the prohibition of smoking in school buildings or on the way to and from school, throwing gum upon floors

or obstructing drinking fountains and washbasins with it, using the school telephones during class hours except in emergencies, and promptness in attendance. To conserve funds policies may be developed specifying that school equipment and supplies shall be requisitioned periodically so far as possible—for example, annually, semi-annually, or monthly. By confining orders to specified approved brands, economies may be effected through quantity buying, the same brand being ordered in all cases where it is feasible. Brands may be changed from time to time if circumstances warrant.

Other policies may relate to the maintenance of school equipment and to issuing supplies to learners Shop and laboratory teachers need to be clear regarding such practices as selling materials to students what to do when students are unable to pay for materials that they expect to use or have used for personal projects; what procedures to follow when additional supplies are needed at once, and how to handle student-teacher financial transactions.

Sometimes breakages and damage occur, and teachers are interested in knowing what policies to follow in such cases The situations cited are only a few of many that deserve reflective thought

VOCATIONAL TRAINING FOR WAR PRODUCTION WORKERS.[20] Some of the more important policies relating to vocational training for war production workers, as adopted by the United States Office of Education and the Pennsylvania state board for vocational education for the Number 1 program, follow:

The authority and responsibility of determining what occupations are essential to war production rest with the War Manpower Commission.

Under the wartime program there are no boundary lines of public school jurisdiction The purpose is to make the greatest use possible of all training facilities that can be geared to war production

Each state or territorial board for vocational education is responsible for the program in its area The funds appropriated for war production may not be used to supplement salaries of teachers and directors employed on a full-time basis on Smith-Hughes and George-Deen funds

[20] *Vocational Training for War Production Workers. Policies Relating to Program Number 1*, issued by State Department of Public Instruction, Harrisburg, Pa., Sept 15, 1942 (mimeographed)

Teachers are limited to a maximum of 48 hours per week for reimbursable service under the regular and the war production programs unless special permission has been secured to teach more than 48 hours

Members of school boards may under no conditions be employed or receive pay for services rendered under either the regular or the war production programs Nor may board members or teachers serve as sales agents, vendors, or contractors for services or goods for the board of education in which they hold membership.

Under certain conditions and with the approval of the state board for vocational education, private vocational schools not exempt from taxation may be used for vocational training for war production

Representative advisory committees must be appointed in an approved manner, and are to be used in connection with the program under discussion

Vocational certificates valid in the regular program are valid for the same subjects or types of service in the war production program

Schools should produce articles of value to the war effort If the material used is purchased from federal funds, the articles become the property of the state (subject to certain conditions) When a local board supplies the material used for certain kinds of equipment to be used in school shops, such equipment "may be considered the property of the local school board"

In general, both supplementary courses and pre-employment courses should be planned so as to be concluded in "the shortest possible time" Pre-employment courses may not be scheduled for less than 15 hours per week unless prior approval has been secured Such courses should be operated for 30 or more hours per week

The placement of trainees in war production training is the responsibility of the United States Employment Service

There are no maximum age limits The minimum age should be such that at the completion of the training period the individual will meet the age requirements in the occupation he wishes to enter

Registration fees may not be charged in war production training courses paid for from funds approved for vocational training for national defense Such funds may be used for operating costs, rental of space for instruction, and the purchase of equipment, all when done in legal manner through approved channels[21]

## *FOR DISCUSSION*

1 Explain how our concepts of freedom influence education

2 Why should policy-making be a cooperative function?

3 Describe the federal government's view of federal-state relationships as they pertain to vocational education

4 What are the conditions that determine when vocational education is under public supervision and control?

[21] Specific policies relating to particular categories of vocational education will be discussed later under their appropriate headings

5. Distinguish between and give illustrative examples of mandatory and discretionary requirements under the Smith-Hughes Act

6 Mention four conditions that determine the legal use of federal funds.

7. Describe five functions of state boards for vocational education.

8 Indicate the proper federal-state channels of cooperation.

9 Explain how state plans for vocational education are drawn up.

10 Name four ways in which federal appropriations for vocational education are safeguarded

11 Discuss in detail admission requirements for vocational education.

12 How shall adequate equipment be determined?

13 For what purposes may Smith-Hughes and George-Deen travel funds be used?

14 Mention several ways in which state and local programs of vocational education may be improved

15 What is meant by mixed classes, and why are they not reimbursable from federal funds?

16 Explain what is meant by matching federal and other funds.

17 Mention five distinct meanings of the word director as used in vocational education

18 Describe the federal policy toward supervising nonvocational education

19. Distinguish between equipment and supplies, giving examples of each

20 Discuss some of the legal aspects of production work done in vocational education

21 State several policies relating to the administration of vocational education

22. Enumerate some essential policies relating to the operation of schools

23 Discuss in detail policies relating to vocational training for war production.

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NOTE: See also *State Plan for Vocational Education* of states in which you are interested

# CHAPTER 9

## *Local Initiative and Responsibility for Vocational Education*

STRENGTH RESIDENT IN THE PEOPLE. Without desiring to detract in any way from the beneficial effects of state and federal guidance, coordination, and leadership, let it be understood that the strength of the vocational education movement in the United States emerges from the people True, vocational education has become a powerful force in the up-building of our nation through state and nation-wide planning, organization, and operation State departments of education make local efforts articulate and help to make them effectual. However, in the last analysis it is the people "back home" in the local communities who are the living, productive units that constitute collectively the "program," the "movement," and the "agency" known as vocational education. In a large measure it is *local* interest, initiative, and effort that give strength, vitality, and dynamic power to vocational education

WAYS IN WHICH LOCAL EFFORTS FUNCTION. In previous chapters references have been made to federal and state laws, policies, principles, and framework of organization It remains for us to show more specifically how local effort functions as a vital force in the total program of vocational education

Although education has been generally held to be the function of the state, it has long been customary for the states to delegate duties, responsibilities, and powers to local units of administration. The powers exercised by local school authorities are granted by the state and may be modified by it In a few states the local unit of school administration is the county; in some instances county units do not include city areas within county boundaries More often the district is the local unit.

Authority to operate local programs within the limits of state law and policy rests with the school board, board of education, school committee, or other authorized and duly constituted group The board is also limited by mandates, rulings, court decisions, and other controls.

The local board is the agent of the people in the unit under consideration. Its powers, being granted by the state, cannot be taken from it except by the same authority The state board of education is responsible for operating all tax-supported schools within the state, whereas the local boards are charged with the duty of carrying out state school laws, policies, and rulings. The local board may also establish policies, rules, and regulations not inconsistent with state laws and regulations.

Executive authority at the local level rests with the local superintendent of schools. Local directors, supervisors, and coordinators of vocational education are usually responsible to the superintendent, either directly or indirectly through an associate superintendent, high school principal, head teacher, or other intermediary

Experience has proved the wisdom of delegating considerable authority to local districts It appears reasonable to expect that states shall delegate responsibilities to the extent that local communities demonstrate their desire and capacity to manage and operate education effectively The personnel of local boards of education and of the administrative and teaching staffs is an important factor in determining the extent of the functions and duties that are delegated.

Existence of Large Variations in Local Programs. One of the most noticeable features of local programs of vocational education is the great variation in size and scope They range from very small, inadequately supported units operated on minimum standards to metropolitan centers that provide superior housing equipment and professional staffs

Local units furthermore vary considerably in the types of vocational education provided In the main one expects to find schools or departments of vocational agriculture and homemaking in the rural areas, whereas vocational indus-

trial, home economics, and distributive education is usually carried on in urban centers. Of course there are exceptions

Since vocational education is usually expected to reflect local training needs to a large extent and since these vary considerably, one may expect as a result variations in groups served, curriculum content, scope of instruction, and other matters In spite of such differences, however, there are many factors that these programs have in common They are based on state school laws; they operate under the state plan for vocational education; they have goals and objectives that are much alike

ESTABLISHMENT OF SCHOOLS AND DEPARTMENTS. The initiative in starting programs of vocational education may come from any one of several sources or from combinations of them For example, the originating effort may proceed from industries, labor, employers, the Grange, the parent-teacher associations, women's clubs, or boards of education or from combinations of such agencies. Legislation may serve as an incentive, area coordinators, state supervisors, county supervisors, and local directors and teachers may also be among the prime movers in originating and organizing local programs of vocational education.

In general, public, tax-supported education needs to be developed as a result of planned, cooperative effort. This planning involves participation of federal, state, and local units For proper planning the federal government depends upon vital statistics supplied by state boards for vocational education. In a similar manner the state office needs essential data for planning and budgeting supplied by the local units. Frequently local surveys, studies, and investigations need to be made They will be discussed in Chapter 14. The state office should have advance information about contemplated expansions and new undertakings that will involve state or federal aid It is common practice for the state boards of vocational education through their professional staffs to suggest or require local school boards to follow such steps as these:

1 Study the local needs for vocational education and the provisions of state school laws and rulings and of the portions of the state

plan for vocational education that relate to existing or expected needs

2. Secure copies of the state forms upon which application for authorization to conduct state or federally aided programs of vocational education are reviewed by the state office.
3. Prepare estimates and detailed specifications showing the nature, scope, and cost of the proposed program for the year or other budget period used by the state and the local board
4. Secure the support of representative advisory committees and other interested groups such as employers, labor, service clubs, parents, and prospective students.
5. If state or federal aid is involved get approval in writing from the state board for vocational education before starting the program and before entering into financial or other obligations relating to the proposed program
6. Have a clear understanding of housing and equipment requirements, as well as certification requirements, the nature of courses of study, the groups to be served, the type and quality of the service to be rendered, and the person or agency that is to bear the costs.
7. Use local or state representative advisory committees extensively and call upon your state department of education for assistance if needed In any event work closely with the latter.
8. Keep the local service area fully informed about the progress being made Determine when various aspects of the program are to be put in operation and plan accordingly
9. Find out what the state office needs in the way of preliminary, progress, and final reports and set up local record and reporting systems that will provide the data needed by state and federal agencies at such times as may be designated
10. Keep accurate and carefully detailed personnel and financial accounts, including a live, constantly up-to-date inventory of materials and equipment

Expansions of Existing Programs Where approved courses or curriculums of vocational education are in operation, it is commonly to be expected that normal increases in the scope of the programs will result from year to year Such normal development can be estimated by the local and by the state offices with satisfactory results It is perhaps rather common practice to have the understanding that local districts operating approved programs need not seek state approval covering expansions of activities that have already been authorized.

However, certain restrictions may need to be imposed in order to avoid financial and other difficulties. The state office may, for example, specify that teachers' salaries shall not

be reimbursed above specified amounts from state or federal funds. Such a policy would mean that if teachers or administrators are to be paid at higher rates, the funds above the minimums mentioned would have to come from local sources Exceptions to general practice might be made by securing approval in advance from the state office

To stimulate local programs along lines that have proved desirable, the state department may also ask that such programs incorporate specified essentials—for example, that there be operated try-out and exploratory courses in the all-day schools to help youth determine their occupational fields; that adequate counseling, placement, and follow-up services be made available for adults as well as for youth; and that functional cooperation be made effective between the schools and the community Further stipulations may relate to provisions in the state plan for vocational education. Should local conditions or requirements be such as to necessitate practices, principles, or policies not covered in the state plan or in conflict with it, there is always the opportunity of presenting the matter to the professional staff of the state board for review and adjustment

THE SUPERINTENDENT OF SCHOOLS. In a large number of city school systems as well as in some county units the superintendent of schools is the recognized professionally trained administrative officer who carries out the policies and plans of the board of education City boards of education, as a rule, are not limited by geographical or political considerations in selecting superintendents. In general, selections are made strictly on professional bases. In the majority of states county superintendents are elected by popular vote, and ordinarily candidates are selected from the locality where the service is to be rendered Such a method of selection has district limitations

The superintendent, as chief local school officer, should recommend the appointment of the director of vocational education To the superintendent the vocational education director should recommend teachers, coordinators, supervisors, or other members of the vocational education staff

In general, superintendents of schools are responsible

for initiating and executing policies. When such policies involve vocational education, however, the director is usually consulted.

When vocational departments are housed in general high school buildings, as is often the case, questions regarding the place and the function of the director and those of the high school principal are likely to arise It is well to have a definite understanding about such relationships and about respective areas of responsibility before contracts are signed. It is suggested that the superintendent make clear to members of his staff precisely what their functions are to be and how they are to fit into the local school organization. Organization charts such as those shown later in this chapter are likely to be helpful in this connection.

THE DIRECTOR OF VOCATIONAL EDUCATION. The term director is here used broadly. It may denote a person having direct charge, under the superintendent of schools, of all of the phases of public vocational education in a very extensive school system in which a number of supervisors, coordinators, and other staff members work under his direction, or a person in a much smaller system where the director divides his time between administration, supervision, coordination, and teaching.

For purposes of discussion a distinction should be made between a director of a vocational department or of one of the categories of vocational education, such as home economics, distributive education, or industrial education, and the director of a broader or more comprehensive program Naturally the duties and responsibilities of directors vary widely. Nevertheless there are important elements of similarity in professional and practical training required, in problems to be solved, in objectives, and in practices to be mastered.

The local director of vocational education should have had successful teaching experience on a vocational basis in at least one of the areas or subjects that he is called upon to administer. In agricultural and trade and industrial education the directors are usually men; in home economics, women.

The position makes heavy demands upon tactfulness, courage, good judgment, and the ability to work cooperatively. To hold the respect of teachers who are expert practitioners, of hard-headed business or industrial executives, of parents, and of academically trained teachers and administrators with whom cordial relations need to be maintained is a task calling for all that one person can be expected to possess of insight, capacity, and energy

Directors usually grow with and through their jobs Experience in smaller districts often leads to jobs of greater responsibility. It needs to be recognized, however, that social and professional usefulness and worth are not necessarily measured in terms of scope, nor is happiness dependent on the size of the program with which one is identified Among the happiest teachers and administrators are those serving rural areas

EMPLOYMENT OF TEACHERS The quality of education in the community depends greatly upon the quality of the teachers who are employed. The success or relative failure of programs of vocational education depends largely upon the ability to attract and to hold enthusiastic, radiant, and able teachers. It is highly desirable that both director and teachers meet fully and if possible exceed the standards set forth in the state plan for vocational education and those of the employing board of education.

In selecting teachers occupational competence, personality, and professional training are among the essential requirements The desire for self-improvement not only to meet the minimum professional requirements but also to become a superior teacher is highly desirable and should be characteristic of every teacher.

Every school district ought to select the most capable teachers available irrespective of whether they live in the local area. Schools exist for the purpose of providing the best possible educational service. To that end teachers should be selected on a strictly professional basis.

PROVIDING HOUSING AND EQUIPMENT. Under state plans for vocational education adequate housing and equipment are stipulated They may be provided in school buildings or

elsewhere—for example, in separate buildings, in business places such as department stores, in rented quarters, or in factories and industrial establishments.

The equipment may be provided by private initiative, that is, by employers; it may be loaned to schools by governmental agencies; it may be purchased with public funds. It must meet all safety requirements of local, state, or federal authorities administering safety and health regulations.

PLANNING PROGRAMS OF INSTRUCTION. Local school authorities should take the initiative in working out programs of vocational education that will help the youths and adults in their service areas to render maximum service to their communities, the states, and the nation In some instances the preparation should be not only for occupations represented locally but also for emerging, growing, vital industries in other parts of the state or nation

In general there are three main groups to be served: (1) youth in all-day schools; (2) out-of-school youth enrolled in part-time and evening classes; and (3) adults able to attend some form of part-time, slack-season, or evening classes. Problems of refresher training and of adjustment training of many kinds bid fair to be of major importance in the years immediately ahead.

It is suggested that close cooperation be maintained between local and state educational leaders in order that educational planning be creative and progressive. State and federal offices can often bring to bear upon local situations experience and knowledge that are very helpful However, this fact does not relieve the local authorities from the responsibility of serving as the energy centers for the development of local programs.

UTILIZING COMMUNITY RESOURCES. Much has already been said in previous chapters about using out-of-school resources to supplement those of the school. It is inspiring to see what many school districts are doing in the way of using extensively the various instructional facilities that exist in their service areas There are also school districts where out-of-school resources are practically untapped.

Resources may be mental as well as physical. The term includes the services of advisory committees, the initiative of laymen and civic organizations, and the help that employers and labor can give through counsel, experience, and legislative efforts, as well as through material or financial aid.

Included also are instructional materials, housing, equipment, and the employment of trained personnel. Community leaders can often offer the schools opportunities for greater service, such as special training for local and even distant industries that are handicapped by shortages of skilled workers. To secure maximum help from community sources the schools must do their part by showing eagerness to serve the community in every feasible and legitimate way.

RELATIONSHIP TO PRACTICAL ARTS. It is generally conceded that various forms of practical arts education, such as general home economics, pre-vocational agriculture, general business practice, and industrial arts education should precede vocational education. Largely for financial reasons, this arrangement represents a goal rather than an accomplishment as far as many of the less wealthy and less populous school districts are concerned.

Every effort must be made to provide for all youth try-out and exploratory experiences as an aid to the wise selection of a lifework. Administrators and leaders in vocational education can well afford to support the movement for better practical arts education. They may also help students, laymen, and others to understand the relationships and the differences between vocational education and practical arts education.

Certainly it is evident that practical arts and vocational education supplement and complement each other. There should be harmony, mutual understanding, and effective cooperation between these related areas of education. In many states, in all but the largest cities, both programs are administered by leaders in vocational education. Sometimes the same shops or laboratories are used for both, and occasionally qualified teachers devote a part of their time to both. Programs in both fields have developed to the point

where there is little excuse for informed persons to confuse the two or to believe that either can replace the other.

DEVELOPING COURSES OF STUDY. Many times demands are made upon state and federal educational agencies to develop state courses of study This practice is desirable within the following limits

1. The courses of study should be developed by superior teachers, in cooperation with local and state administrators, and perhaps with the assistance of teacher-trainers.
2. The courses of study are to be regarded as suggestive of what has proved useful in certain schools, and it should be clear that the material is to be used only to the extent that it meets actual requirements
3. It should be understood that not only original adaptation to local conditions is necessary, but that constant re-evaluation, modification, and improvement are expected.
4. Wherever possible, groups of superior teachers who are familiar with local as well as wider area requirements should be encouraged to develop courses of study and instructional materials for local use. The extent to which course material should reflect other than local needs depends upon variable factors that should be evaluated
5. All vocational course material should have the approval of representative advisory committees as well as of leaders in the vocational education areas concerned

BUDGET-MAKING. Financial planning is important in education as well as in business The state department of education usually furnishes budget forms for the local financial and statistical reports it requires The local school system may also want financial and statistical statements from time to time and may require data to be submitted in a different form from that sent to the state office Wherever possible, records should be kept in ways that will make it easy to supply immediately the information wanted.

Administrative costs are frequently separated from instructional costs, and outlays for equipment are kept distinct from expenditures for instructional materials. In figuring unit costs such as the cost of instruction for each student-hour, it is usual to subtract from actual costs the value of the products made for the board of education. The net cost would be the total cost less credits such as have been mentioned The net cost to the local board of education is sometimes reported as the actual cost, less credits for work done and less state and federal aid

In the case of vocational education for the war effort the federal government bears all or most of the cost Under the Smith-Hughes and George-Deen Acts the amount of federal and state aid varies according to the provisions of the acts and those of state plans for vocational education

It is highly desirable for prospective directors of vocational education to acquire accurate cost data covering salaries, equipment, supplies, office expenditures, and other costs in the areas of their major interest Frequently a newly appointed director is expected to prepare a detailed budget without having access to expenditures for the preceding year for the program under consideration. A director of vocational education should know what financial outlays are required to furnish the various kinds of shops, laboratories, classrooms, and offices required in his field. He should know what it costs to meet minimum standards, to equip more adequately, and to provide generously for each type of instruction To do this often requires much effort. In larger school districts persons specialize in this

Sometimes up-to-date cost data may be secured from school authorities who have recently let contracts for similar installations. Other sources of information are the state department of public instruction and manufacturers or dealers. Some catalogs list approximate prices Discount sheets, revised from time to time, may be available upon application If the budget includes separate allotments for equipment and supplies, requisitions should be similarly separated

Some school districts use lists of items usually kept in stock and expect teachers to order the stock varieties, as this

practice results in savings to the school district Exceptions are made when necessary

Some states and local districts have definite requirements covering the purchase of equipment and supplies above specified amounts For example, it may be necessary to secure three or more bids before contracts can be let.

Directors of vocational education sometimes plan helpful trips for persons who have a part in determining expenditures. A good way to educate lay members of school boards concerning costs is to plan inspection trips to schools where desirable installations exist and to have them inquire about costs. In other instances the board of education sends the director to report upon schools known to have good housing, equipment, and instructional programs Savings are often made by submitting the contemplated plans to members of the state department of education for review

ORDERING SUPPLIES Instructional supplies are frequently estimated and ordered some months in advance, as considerable time is required to submit bids, award contracts, and receive deliveries. Requisition forms are often prepared in triplicate, one for the vendor, one for the purchasing agent, and one for the instructor who originates the order and who checks against it when deliveries are made

It is desirable to number each item on the requisition. The description should be such that the vendor will be required to supply the particular size, quality, or color desired For example, if screw drivers are wanted, the description may read Item 16, 2 Stanley, No. 2008, Electrician's Screw drivers, blade 10 in., $\frac{3}{16}$ in, overall $13\frac{5}{8}$ in If the description merely specified: 2 screw drivers, 10 in. blade, an inferior article might be supplied

Totals should be given on all requisitions, and the name and address of the vendor should be included. Requisitions ought to be dated and orders classified as to kind Delivery is often slowed up by including items not stocked by the vendor specified. It is suggested that substitutions of one make or brand for another be not permitted without advance approval. Each instructor should be informed regarding the total amount of his allotment of funds for the year or other

recognized period of operation When production work for the board of education or for the war effort is to be done, the quantity of supplies must be adjusted

Certain dealers specialize in hard-to-get materials used by schools. Priorities or critical materials have already resulted in the substitution of new or available materials. By-products, left-overs, and scrap materials can sometimes be used to advantage. Industries and business establishments are sometimes helpful in providing materials used in training their employees. Shop teachers who are low on certain items and well stocked on others sometimes exchange instructional supplies to the advantage of everyone concerned. Materials may be saved by emphasizing repair and maintenance of school and home equipment and tools.

THE LOCAL COORDINATOR. The term coordinator may refer to a representative of a state department of education or of a local school board. The geographic area served varies greatly At the local level the coordinator may cover a service area of considerable extent, such as 25 or 50 miles In other instances the coordinator may limit his contacts to service within one of several vocational schools. For example, in Philadelphia a coordinator is assigned as assistant to the principal of the Fleisher Vocational School for girls and women. This coordinator has special responsibility for trade and industrial training, such as machine-shop practice, welding, and radio assembly, taught in that school to women and girls as phases of war production training.

In the same city a coordinator has charge, under the general direction of the high school principal, of the annex (located some distance away) of the Mastbaum Vocational School. Other coordinators are in immediate charge of other annexes, such as that of the Dobbins Vocational School.

In other school systems coordinators serve as links between the school system as a whole and the community They may devote much of their time to ascertaining current training needs, to placing persons in job-training positions, to following up trainees on the job, and in general to coordinating school and community educational efforts

In some school systems local coordinators have charge

of the operation of diversified occupations programs. In others a coordinator may be assigned to a special phase of vocational education, such as training for mining, hotel service, apprenticeship, or distributive education.

Good judgment, a suitable personality, and familiarity with vocational education and the community interests to be served are essential to success. Some schools employ women coordinators to work with women and girls and men coordinators to serve men It is often advisable for coordinators to have conferences with the director of vocational education. Regular weekly meetings are sometimes called for this purpose.

Area or regional coordinators sometimes represent the state department of public instruction and operate from the capitol, the campus of a teacher-training institution, or other approved headquarters. Their services may include supervision, teacher-education, and other assigned responsibilities.

IMPROVING TEACHERS IN SERVICE Currently the urgent need for skilled workers, the rapid rate of replacement among teachers, and limitations on travel represent some of the reasons why directors of vocational education need to give special attention to the improvement of teachers in service.

In school systems operating three or four shifts every twenty-four hours, the matter of in-service training is complicated, especially if teachers under the war training program are shifted frequently from one "trick" to another. Another factor to be considered is the relatively high number of hours a week that many instructors are called upon to teach.

The employment of persons occupationally competent but without much if any professional training as teachers represents a temporary expedient under the vocational training for war production program Many of these men bring to the teaching field experience and talent that are very much worth while. It is reasonable to anticipate that the best among them may hope to look forward to teaching after the present emergency is over. The improvement of teachers in service should be viewed from a long-term angle.

It is probable that many different means will need to be used for teacher improvement. Among these are. (1) informal, short, intensive, noncredit courses given by local directors with or without the cooperation of teacher-trainers; (2) intensive courses (either credit or noncredit) given on campuses or in extension; (3) functional, approved correspondence courses given to those who cannot avail themselves of group instruction

One of the most effective means of assisting an inexperienced teacher is help on the job—with or without supplementary instruction, depending upon what is feasible.

SCHOOL RECORDS. Records are essential to good administration. Among those of special interest to teachers are records of (1) attendance, (2) equipment; (3) supplies; (4) jobs under way, (5) work completed, (6) individual pupils; (7) class achievement, and (8) safety.

Equipment records are often kept on 3- × 5-inch or larger cards, each indicating such items as name and description of article, dealer, price, method of securing, date acquired, condition, and present value.

Supply records may well be kept in a "live" card index file, with cards classified to suit the circumstances. It is suggested that cards show quantities purchased, prices paid, and amounts on hand.

Records of instructional jobs or projects under way are sometimes filed in a special rack in the school shop or laboratory, where they are readily accessible for students who are required to keep their own job records and for substitute teachers

Instructional units completed may be kept in the teacher's class record book, on summary sheets or charts, in job card racks, or in other ways. When records are kept on charts posted on the bulletin board, grades are usually not shown. Some schools include a detailed statement of units of work completed as a part of the diploma.

Individual student records are sometimes kept in packet form They may include report cards from schools previously attended, personal history records, results of tests and measurements, counselor's comments, clinical reports,

rental permission to use power machinery or to engage certain activities, employment record, and an abstract of ourses taken and grades received in the school attended

Class achievement records reveal in summary form what ach student has completed and what he has yet to do. uch records are most helpful if they are constantly kept p-to-date. This task may be assigned to one of the students, r to several, each following another, who serve as chief lerk to the class Summary records are sometimes drawn p so as to show a period of 1, 2, 3, or even 4 years

Safety records may be kept on forms supplied by the local chool district, the insurance carrier, the state department f education, or the state department of labor and industry It is considered advisable to make records of minor as well s major injuries since a little scratch may lead to serious trouble. Schools can do much to develop safety ideals, habits, and practices.

EXAMPLES OF SCHOOL ORGANIZATION As an aid in visualizing how local vocational schools are organized, and to illustrate some of the types of service rendered, a few specific cases will now be discussed It should be understood that the samples selected could be multiplied manyfold. It is reasonably certain that there are many schools not mentioned which are fully as worthy of citation. The directors and teachers in the schools chosen, while proud of their schools, would be among the first to agree to this statement.

*The Muncie, Indiana, Trade School.*[1] The city of Muncie, Indiana, has a population of approximately 50,000 persons The development of industrial education in Muncie after September, 1939, is representative of what other school districts of similar resources have done or can do.

In the fall of 1939 the Board of School Trustees recommended that the superintendent of schools select a steering committee "to discuss the possibility of expanding trade and industrial education facilities of the public school in line with existing community needs." A committee of sixteen citizens, representing numerous community interests, includ-

[1] *Muncie Trade School,* issued by the Board of School Trustees, 1942, 32 pp

ing the Chamber of Commerce, manufacturing, finance, building contractors, the C.I.O., the A F. of L., and citizens, was appointed.

The committee recommended that an occupational survey be made The survey showed certain definite training needs, including instruction in machine and electrical trades, drafting, auto mechanics, building trades, commercial cookery, practical nursing, and cosmetology It also became clear that apprentice training and evening classes for adults were needed.

A general advisory committee for vocational education was appointed. It consisted of four members: a merchant, representing the Merchants' Association; a manufacturer, representing the Muncie Chamber of Commerce, a molder, representing the A.F of L , and an inspector, representing the C.I O. As a precaution the organizations concerned were consulted before appointments were made in order that there would be no question about their acceptability

The duties of the general Advisory Committee for Vocational Education were outlined by the Board of School Trustees The general Advisory Committee soon saw the advantage of having subordinate trade advisory committees for each trade taught. By trustee action these committees were made advisory to the director and coordinator of vocational education.

Additional housing space became necessary The first thought was to erect a new building of the industrial type. However, the bonded indebtedness of the school district made that solution impractical. Furthermore, the need for housing was immediately urgent Therefore space was leased as needed

With our entrance into World War II vocational training related to our war effort was put into high gear. Many modifications were made from time to time One of these was part-time cooperative education, and another was the development of apprentice training Radio communication, aeronautics, welding, and other courses were added to supply the demand for war production The trade school was put on a twenty-four hour schedule. A tie-in was developed with the United States Employment Service. Purdue

University was approached with reference to developing at Muncie an extension center.

Other services were developed, such as training for distributive occupations. Courses in retail salesmanship, merchandise display, showcard lettering, specialty selling, and advertising were given Additional courses were organized in effective speech for sales people, textiles, supervisors' training, service station salesmanship, dairy route salesmanship, and waitress training

Foreman improvement conferences were conducted in most of the industries of Muncie. They were put on with the cooperation of the Indiana State Department of Education and Purdue University.

*The Macomber Vocational High School.* The Macomber Vocational High School is a modern, attractively housed, centrally located vocational high school in Toledo, Ohio, a city of approximately 300,000 persons in 1940.[2] The school was completed in September, 1938, at a cost of approximately $1,750,000, including building and equipment. The major objectives of the school are to help each student choose a vocation; to help him prepare for the vocation of his choosing; to assist him in acquiring proper interests, attitudes, and ideals; and to aid him in finding suitable employment and give him follow-up service in the field of work he elects.

To aid in these socially important objectives the school combines guidance and education in a realistic, functional manner. Criteria are set up to help students determine what is a good vocation for them. They are assisted in finding out what they must do to choose their lifework wisely. They are taught how to study occupations and, what is equally important, their own interests, aptitudes, and capacities

The curriculums in the all-day school call for the following distribution of time: practical work, 50 per cent; related subjects, 25 to 30 per cent; and nonvocational subjects, 20 to 25 per cent This arrangement is representative of standards usually found in state plans for trade and industrial education.

[2] *Skill Pays*, courtesy of F M Dannenfelser, Principal of Macomber Vocational High School, Toledo, Ohio, 1943, 80 pp

Considerable attention is given to helping students, teachers, deans, and principals to understand what constitutes satisfactory entrance requirements for the school. Helpful occupational charts showing the opportunities for advancement in the occupations taught in the school were prepared. These are combined with photographic illustrations and descriptive material in the publication *Skill Pays*

Each of the four major activities of the high school—namely, the full-time trade preparatory program, the half-time cooperative program, the part-time trade extension, including employee training in industry, and the adult evening trade preparatory and trade extension work—is made to function with the aid of a coordinator. Large as well as smaller schools in other cities have found that plan very helpful

An outstanding feature of the school is the ample conference rooms that are a part of the shop units and enable the instructor to give related technical subjects in rooms directly adjacent to the shops. The locker and washroom provisions have been worked out with care They combine convenience, sanitation, and protection at reasonable cost Fortunately the school was adequately equipped before priorities were put into effect

It should be mentioned that the Macomber School was planned to train boys and men. Since the current labor shortage makes it necessary to train women and girls for work heretofore performed almost exclusively by men, the city of Toledo has built a separate vocational school for girls—the Harriet Whitney Vocational High School, situated across the street from the Macomber School.

Among the occupations taught in the Macomber Vocational High School are aeronautics, architectural drafting, auto electricity and radio, auto mechanics and Diesel service, cabinetmaking and millwork, and collision service Students also study commercial art, electricity, machine shop, and mechanical drafting. Other occupations include office practice, patternmaking, plumbing and refrigeration, and printing.

Sheet metal and air conditioning are combined Gas and electric welding are taught in the same shop. Related sub-

jects, including applied mathematics, science, and drawing, are featured.

PERSONNEL ORGANIZATION IN SCHOOL-SHOPS AND LABORATORIES In accordance with the belief that students learn best through doing, many vocational teachers use a personnel organization that approximates those in industrial and business establishments. In every case there should be adaptation to prevailing conditions The number of persons used, their duties, time of service, and system of rotation may be arranged to suit requirements.

It is suggested that the specific functions for each person be worked out and posted In this way each student will be able to check as to whether he is performing his duties as intended The instructor will need to use his judgment about how much is to be expected of each foreman.

RELATIVE FINANCIAL PARTICIPATION. A study made by Clarence Heer showed that, on the average, approximately 28 per cent of all state expenditures were made in support of public education. Local communities spent from 27 to 34 per cent of their funds for education. The federal government devoted from 1 to 3 per cent of all expenditures for educational purposes in the years 1929-30 to 1935-36.[3]

*FOR DISCUSSION*

1. Give a specific illustration showing how local interest, initiative, and effort help to make schools strong and effective
2 Where does executive authority for education rest, (*a*) at the state level and (*b*) locally?
3 To whom or to what agencies may we look to take the initiative in starting programs of vocational education?
4. Mention the steps school boards should follow in establishing vocational schools or departments
5 Is it reasonable to ask school districts to advise the state office in advance when expansions involving state or federal funds are contemplated? Explain.
6 Enumerate a dozen or more responsibilities of a local director of vocational education.
7 Make constructive suggestions concerning how to select a vocational teacher
8 Explain how housing and equipment may be provided for vocational schools

[3] Clarence Heer, *Federal Aid and the Tax Problem*, the Advisory Committee on Education, Staff Study No 4, 1938.

9 What groups of persons may be served through vocational schools?

10. State how community resources may be used for purposes of vocational education

11 What are the chief reasons for developing cooperative relations between practical arts and vocational education?

12 Tell how and by whom courses of study should be developed

13. Assume you are employed as a teacher in your field of major interest and are asked to submit a budget for the coming fiscal year. How would you go about it?

14 Explain in detail how to order instructional supplies and equipment

15 What are representative duties and responsibilities of coordinators?

16 How may teachers be improved while in service?

17 Name and describe six or eight kinds of records vocational teachers are expected to keep

18 Describe in detail the plan of organization of a vocational school system

19 Make a diagram of the personnel organization suited to a vocational school shop or laboratory in your field of special interest and discuss it

20. What deductions may be drawn from Heer's facts relating to local, state, and federal expenditures for education?

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# CHAPTER 10

## *The American Vocational Association and Other Associations and Groups*

THE NATIONAL SOCIETY FOR THE PROMOTION OF INDUSTRIAL EDUCATION.[1] In the spring of 1906 two men, Dr James P Haney, Director of Manual Training, New York City, and Professor Charles R. Richards, then of Teachers College, Columbia University, were convinced that the time had come to promote trade and industrial education on an extensive basis On June 9 a group of thirteen representative leaders were brought together at the Engineers' Club, New York City The meeting revealed a widespread interest in industrial education, which was considered a matter of outstanding importance socially and economically.

At a meeting held at Cooper Union, New York City, on November 16 of the same year, about 250 persons attended and the National Society for the Promotion of Industrial Education was organized. The chief objectives of the National Society were·

> To bring to public attention the importance of industrial education as a factor in the industrial development of the United States, to provide opportunities for the study and discussion of the various phases of the problem, to make available the results of experience in the field of industrial education, both in this country and abroad, and to promote the establishment of institutions of industrial training.

All persons interested in industrial education were eligible for membership. From the outset those sponsoring the movement recognized the advantages of having leaders from industry as well as educators participate actively in the association

As early as April, 1907, the formation of state com-

[1] For a fuller discussion see F. T Struck, *Foundations of Industrial Education,* Chapters 8 and 9

mittees was stimulated. In the years that followed the state associations developed into strong units of the parent organization.

In 1912 Dr. Charles A Prosser was made Executive Secretary of the National Society Too much cannot be said in praise of his great contributions to the cause of vocational education The years 1912 to 1917, in which the Smith-Hughes Act was actively promoted and passed, represent one of the most active periods of the National Society and the host of friends and supporters outside the membership In those years public opinion was molded; legislation was drawn up; and America laid the groundwork for its vitally important and now extensive program of vocational education through the public schools of the nation

THE NATIONAL SOCIETY FOR VOCATIONAL EDUCATION Even before the Smith-Hughes Act, approved February 23, 1917, became a law, it was evident that it would be in the national interest to further and promote vocational education on a broader basis than was contemplated when the National Association for the Promotion of Industrial Education was organized in 1906 Instead of limiting the effort to industrial education the Smith-Hughes Act made provision for assisting the states in promoting agriculture, home economics, and to some extent business education

By February, 1918, the membership had grown to approximately 1700 In accordance with the recommendation of its Committee on Future Plan, Policy, and Organization, presented at the eleventh annual convention held in Philadelphia, February 21-23, 1918, the name of the National Association for the Promotion of Industrial Education was changed to the National Society for Vocational Education. The objectives and scope of service proposed for the new association were broadened and were given recognition in the more inclusive name of the association. The relationship between the two associations was expressed by continuing the numerical order of the annual conventions Thus the next annual convention was called the Twelfth Annual Convention of the National Society for Vocational Education.[2]

[2] *Ibid*, pp 118-9.

THE VOCATIONAL EDUCATION ASSOCIATION OF THE MIDDLE WEST. Between the years 1914 and 1925 there developed in the Middle West an organization which sought to serve the states of the Mississippi Valley much as the National Society for Vocational Education was serving the industrial East and to some extent the country as a whole The association had progressive leadership and an enthusiastic membership It became apparent that it would be to the advantage of the members of the National Association for Vocational Education as well as those of the Vocational Education Association of the Middle West if they could join forces and work out plans that would accomplish on a truly national scale what each had succeeded in doing largely on an extensive regional basis.

After careful consideration both associations agreed to unite and reorganize along lines that appeared to give promise of meeting the best interests of all concerned. At the annual convention held at Louisville, Kentucky, December 2-4, 1926, the American Vocational Association was formed Official action on the merger was previously taken by the National Society for Vocational Education at Cleveland, Ohio, on December 4, 1925, and by the Vocational Education Association of the Middle West at Des Moines, Iowa, on March 20, 1926

THE AMERICAN VOCATIONAL ASSOCIATION [3] The major objectives of the American Vocational Association include:

(a) To assume and maintain active national leadership in the promotion of Vocational Education
(b) To render service to state or local communities in stabilizing and promoting Vocational Education
(c) To provide a national open forum for the discussion of all questions involved in Vocational Education
(d) To unite all the Vocational Education interests of the country through membership representative of the entire country
(e) To have and possess all the rights, powers, and privileges given to corporations by common law.

All persons interested in vocational education are eligible for membership By far the largest proportion of members

[3] *Constitution of the American Vocational Association, Inc*, October 1, 1938

hold what is known as affiliated membership—that is, they hold membership through belonging to a society affiliated with the A.V.A., such as a state vocational association.

To encourage the formation of state and local vocational associations state associations often make it possible for persons to hold membership in both the state association and the A.V.A. at a cost lower than that required to join the A.V.A. directly. For example, in some states, an annual membership fee of $2 covers dues for the state association and the A.V.A., whereas direct memberships, held by individuals who wish to belong to the A.V.A. but not to an affiliated group, currently cost $3 a year.[4]

All those who pay annual dues of $10 are known as contributing members. Sustaining memberships may be held by those who pay annual dues of $25; trade and similar organizations are eligible. Endowment (life) memberships may be had by paying the sum of $100 at one time (or on an installment plan). The proceeds from endowment memberships become part of a permanent endowment fund, only the interest of which is used currently.

*Officers of the A.V.A.* The constitution at present provides for a president, eight vice-presidents, one representing each of the following types of education: agricultural, business, home economics, industrial arts, industrial, part-time, vocational guidance, and vocational rehabilitation; a treasurer, and an executive secretary. These officers constitute the Executive Committee, which is the administrative body of the Association. It has charge of conferences, conventions, and all publications, and is responsible for the safe-keeping and investment of the Association funds. The Executive Committee appoints the Executive Secretary and determines his compensation.

*House of Delegates.* The business of the American Vocational Association, except as otherwise provided in the constitution, is conducted through the House of Delegates composed of the state directors of vocational education, including those from Hawaii and Puerto Rico; the presidents of affiliated associations, and one delegate for a specified number of affiliated members. The House of Dele-

[4] Membership dues may be changed from time to time

gates meets and transacts its business at the time and place of the annual convention of the Association.

*Affiliated and related groups* There are a number of associations and groups that are either affiliated or have a close tie-in with the American Vocational Association. The following partial list is indicative of the nature of these groups:

State Vocational Associations
National Association of Industrial Teacher Trainers
National Association of State Directors of Vocational Education
National Association of State Supervisors of Trade and Industrial Education
National Association of Trade School Principals
National Council of City Directors of Vocational Education, Industrial Arts, and Trade School Principals
State Supervisors of Agricultural Education.
State Supervisors of Home Economics
Ten-Year Teacher-Trainers in Agricultural Education.
"The Ship" (an association of representatives of firms serving vocational schools)

*Standing and special committees* Through constitutional provision the American Vocational Association has a representative nominating committee of 14 members, a resolutions committee of 8 members, and an auditing committee of 3 members Also created by the constitution are a program committee of 10 members and a publication committee of 5 members.

Each of the eight major divisions of the Association—namely, agricultural education, business education, home economics education, industrial arts education, industrial education, part-time schools, vocational guidance, and vocational rehabilitation—has a policies committee of 5 members created by the constitution and a convention program committee of 4 members created by the Executive Committee of the American Vocational Association.

Supplementing the 5-member publication committee created by the constitution are a 6-member committee of standards in industrial arts training, and a 4-member committee on publication service to members, both created by the Executive Committee

There are a budget committee of 3 and a membership

committee of 4, which function as subcommittees of the Executive Committee.

Standing committees of members of the Executive Committee and of the general membership include the following: public relations, 14 members; legislative, 5 members; editorial board, 9 members; distinguished service award, 5 members; some achievements in vocational education, 3 members; and research, 5 members.

The Executive Committee has also created a subcommittee of the Executive Committee to report to the House of Delegates, and a constitution revision committee of 8 members.[5]

When preparations are made for an annual convention a number of additional local convention committees may be appointed, such as local executive, honorary, entertainment, exhibits, transportation, finance, membership, publicity, registration and information, housing, and service. A special state committee may also be appointed to cooperate with the city chosen for the convention

*A.V.A. publications.* Beginning in February, 1926, the official organ of the American Vocational Association was the *News Bulletin of the American Vocational Association.* This was expanded into the *A V.A Journal and News Bulletin* in 1934. The volume numbering has been kept consecutive from 1926 to the present The editor-in-chief is the executive secretary of the association. A group of nine representative leaders serve as members of the editorial board.

Special numbers of the *A.V A Journal and News Bulletin*, such as the 1941 edition entitled "Vocational Defense Training," are issued from time to time The Association also puts out other publications as needed and sponsors a series of research bulletins, which are issued by the Research Committee or with its assistance.

*State vocational associations.* Much of the vigor and strength of the American Vocational Association comes through the combined membership of state vocational associations made articulate through its recognized leaders. The

[5] *A.V A Journal and News Bulletin,* Vol XIV, No 3, February, 1939, and the Constitution of the Association

form of organization differs somewhat among the state associations. For example, there are differences in the kinds of groups that make up the state associations In one state business education is definitely included; in others it may not be In one state industrial arts teachers are not included, whereas in another state they hold membership.

RELATIONSHIPS AND SERVICES RENDERED. It will be recalled that one of the objectives of the A V.A., as stated in the constitution, is to assume and maintain active national leadership in the promotion of vocational education It is apparent, of course, that there are other agencies that share this responsibility. Among them are local boards of education, state departments of public instruction, the United States Office of Education, labor organizations, and employers' associations. The work of all these and of other agencies needs to be coordinated and guided. Their combined strength should be made to focus upon objectives national in scope This is one of the functions of the A.V.A.

Through its affiliated associations and its extensive membership the A.V A. has developed a professionally powerful organization that is suited to respond quickly and effectively to emerging needs that call for vocational education service On its numerous committees are found many leaders of vocational education in the country The Executive Secretary of the A V.A , Dr L. H Dennis, was called to that office because of his demonstrated ability as an executive and a successful state director of vocational education. His contacts with Congress and with government agencies are many.

Among the services rendered by the A.V.A., working through and with other agencies or groups, are:

1. Determining vocational education needs
2. Shaping needed national legislation and marshalling support for it.
3. Developing standards for new types of vocational education and modifying older ones when needed
4. Serving in advisory capacities to federal, state, and local groups, including the armed forces.
5. Providing national open forums and conferences dealing with vocational education in all its categories.
6. Assisting the states in developing programs especially suited to their requirements.

7. Making available the pooled experience of the country in vocational education
8. Serving as a clearing house for matters relating to vocational education

*Conferences sponsored by the A.V.A.* As one of the means of formulating policies, standards, and directives the American Vocational Association calls conferences of key persons whenever there is need for them These meetings are in the nature of round-table work conferences.

Of widespread interest to the membership at large are the annual conferences sponsored by the A V A. By mutual agreement and unless circumstances dictate otherwise, they are rotated on a regional basis, as this policy makes it possible for the maximum number of teachers to attend such a conference, at least upon those occasions when it is held in their section of the United States The annual conferences are planned so as to focus upon the latest developments One or more general meetings are supplemented by an array of sectional meetings and group conferences. Commercial exhibits of a high order help to make the conferences worth while Trips to places of interest in the convention area and on the way thereto are likewise educational. The opportunities to discuss matters of special interest with some of the other persons attending the convention may have distinct bearings upon local and state programs

NATIONAL ASSOCIATION OF STATE DIRECTORS OF VOCATIONAL EDUCATION. This association is made up of a group of 51 persons—the state director of vocational education from every state in the union, Hawaii, Puerto Rico, and the District of Columbia.

The Association was provisionally formed on November 10, 1920, when C. V. Williams of the Kansas State College, Manhattan, Kansas, was made president of the temporary organization at a meeting held in Salt Lake City, Utah He became the first elected president of the permanent National Association of State Directors of Vocational Education on May 10, 1921, at a meeting held in Chicago. It has been customary for the state directors to meet immediately preceding the annual conference called by the American Vocational Association and in the same city.

Among the matters considered by the state directors are the current vital issues facing those interested in vocational education.[6] Through its officers and committees the Association works with other associations and groups interested in vocational education.

NATIONAL ASSOCIATION OF INDUSTRIAL TEACHER-TRAINERS.[7] In August, 1936, the Vocational Division of the United States Office of Education called a conference at Minneapolis. The industrial teacher-trainers present at that conference believed that it was desirable to form a national association of persons engaged in industrial teacher-training. It was proposed that a national association be formed, that it meet in connection with the annual convention of the American Vocational Association, and that it be coordinated with the National Association of State Supervisors of Trade and Industrial Education.

The constitution adopted at the Baltimore meeting in 1937 provides, among other matters, that "all persons who devote half or more of their time to teacher-training in industrial education, either general or vocational—shall be eligible for membership." The term teacher-training is interpreted to include service to prospective teachers and to teachers in service within and without teacher-training institutions.

The officers consist of a president, three vice-presidents, and a secretary-treasurer Three trustees, together with the officers mentioned, constitute the Executive Committee.

NATIONAL COUNCIL OF CITY DIRECTORS OF VOCATIONAL EDUCATION, INDUSTRIAL ARTS, AND TRADE SCHOOL PRINCIPALS. At the A.V.A. War Work Training Conference held at Toledo, Ohio, December 2-5, 1942, two national associations consolidated The National Association of Trade School Principals and the National Council of City Administrators of Vocational Education and Industrial Arts took official action which united the two organizations. Membership is composed of administrators, directors, and

[6] *Convention Program, of National Association of State Directors of Vocational Education,* Boston meeting, December 8-9, 1941

[7] Notes by Dr Homer J Smith, prepared for members of the N A.I.T T, Baltimore meeting, December 1-4, 1937

supervisors of trade and industrial and industrial arts education.

The officers consist of a president, two vice-presidents, a secretary, and a treasurer. Charles F. Bauder, Director of Vocational Education, Philadelphia, was the first president.[8] Earl L. Bedell, Director of Vocational Education, Detroit, was elected secretary, and Edward Berman, Assistant Superintendent of Schools, Bayonne, New Jersey, was the first treasurer.[9]

NATIONAL COUNCIL FOR BUSINESS EDUCATION AND AFFILIATED ASSOCIATIONS The Council is a central organization of affiliated national, regional, state, and local associations of business teachers. No individual teacher belongs to the Council. Dues are collected not from individual teachers but from the affiliated associations

There are four classes of membership Class A includes associations having memberships of 1000 or more. The annual dues are $20 for each such association. Class B associations, having memberships of 500 to 999, pay $15 a year. Class C associations, with memberships of 100 to 499, pay annual dues of $10. Class D, with memberships less than 100, pay $5 a year.[10]

The purpose of the Council is set forth as follows:

> To provide a means of obtaining from the many associations of business teachers, definite, authoritative, and unified thought and action on questions of national policy affecting business education, to study methods by which business education can contribute most effectively to the total education program; to provide machinery for the expression of the will of business teachers throughout the country on issue of major importance in their field; and to cooperate with other groups of educators on projects involving business education.

The National Council Administrative Board is made up of twenty-four members Six members of the Board retire each year and are replaced by new ones. Election is through official ballot, published in the *Journal of Business Education*.

[8] Data supplied by Warren K Begeman, Director, Technical Schools and Industrial Arts, St Louis, President, National Association of Trade School Principals

[9] *Industrial Arts and Vocational Education*, February, 1943, p. 24A.

[10] *The Journal of Business Education* As of December, 1942, there were forty-three affiliated associations.

The Council activities are numerous, including cooperation with such groups as the National Association of Directors of Vocational Education and contacts with the United States Office of Education, the United States Employment Service, and the War Manpower Commission. Other activities of the Council include the National Clerical Ability Testing Program, special aid for training office workers for war industries, the preparation of a yearbook, business education in colleges and universities, federal legislation, and the elimination of the present multiplicity of business education associations.

The Council has also made arrangements with the Typewriter Educational Research Bureau to take over the distribution of its tests, which are to be printed, distributed, and scored by the Science Research Associates of Chicago. The tests are to be constructed, as formerly, under the direction of one of the Board members with the cooperation of the Typewriter Educational Research Bureau [11]

AMERICAN HOME ECONOMICS ASSOCIATION.[12] The American Home Economics Association was organized in 1908. The chief purposes center around the development and improvement of home and family life. Major emphasis is placed upon such vital matters as nutrition, housing, family welfare, and health. The Association stands for professional growth and development. It seeks to achieve through group participation results that are impossible for isolated home economists.

National headquarters are at 620 Mills Building, Washington, D C. The officers consist of a president, three vice-presidents, a recording secretary, and a treasurer. The Council is composed of past presidents, elected and salaried officers, the president and councilor of each affiliated state association, regional councilors, chairmen of divisions and departments, and chairmen of college and high school sections of student clubs departments

The Executive Board includes the elected officers of the Association, chairmen of divisions, chairmen of depart-

[11] Frederick G Nichols of the Board and Grace L Meyers of the Typewriter Educational Research Bureau

[12] *Journal of Home Economics,* December, 1942.

ments, the executive secretary, the editor of publications, the business manager, and the field secretary.

The Executive Committee is made up of the elected officers of the Association, the executive secretary, the editor of publications, the business manager, the field secretary, and elected members. The Headquarters Staff includes the executive secretary, the editor of publications, the business manager, the field secretary, and the editor of Consumer Education Service.

There are seven regional councilors. They constitute the Time and Place Committee for the Annual Meeting.

The Association has five divisions: Family Economics, Family Relations and Child Development, Food and Nutrition, Housing, and Textiles and Clothing There are nine departments as follows: Colleges and Universities, Elementary and Secondary Schools, Extension Service, Home Economics in Business, Home Economics in Institutional Administration, Homemaking, Research, Social Welfare and Public Health, and Student Clubs The names of the divisions and departments indicate something of the scope and character of the activities of the Association.

Further insight into the activities may be gleaned by noting the nature of some of the committees. These include. Advisory Committee for the Department of Student Clubs, Borden Award Committee, Committee on Consumer Interests, and Committee on Cooperation with Southern Negro Home Economics Workers

There is a Coordinating Council of the A.H E A., A.V.A , and N.E A., as well as committees dealing with the educational use of commercial material, fellowship awards, historical material, home economics in consumer education, home economics in education through films, home economics through libraries, and home economics through health education. There is a joint committee with the American Dietetics Association on school lunches, one on management problems in wartime, another on membership and journal promotion, and a Legislative Committee.

The membership consists of 9017 active members and 5882 junior members, making a total of 14,899 [13] Each of

[13] For the year 1942

the following states is represented by memberships of 500 or more: New York, Ohio, Pennsylvania, Illinois, California, and Indiana

Active members of the American Home Economics Association pay $3 annual national dues and receive the *Journal of Home Economics*, published monthly except in July and August The September *Journal* goes to junior members, who pay $1 annual dues.

THE NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES [14] The forerunner of the National Education Association was the National Teachers' Association, organized in 1857 in Philadelphia In 1906 a charter was granted by Congress to the National Education Association of the United States. Since 1917 headquarters have been in Washington, D. C. The present building, at 1201 Sixteenth Street, N W , Washington, D. C , has been occupied since 1920 and was enlarged in 1930.

The Association, with the assistance of a membership including that of affiliated organizations, is dedicated to building up democratic civilization, advancing the interests of the teaching profession, promoting the welfare of children, and fostering education for all the people. The officers consist of a president, executive secretary, secretary-emeritus, treasurer, two honorary vice-presidents, and twelve vice-presidents There is an Executive Committee of nine members, a Board of Trustees of four members, and a Board of Directors of sixty-one members In each state there is a state director who officially represents the N.E.A. and the membership of the state association

Business, except as provided otherwise in the constitution, is transacted through a Representative Assembly, consisting of approximately 1500 delegates. Annual meetings are customarily held in the last week in June. The meetings are open to all members, but voting is restricted to delegates. The Representative Assembly is the policy-forming body of the N E.A Resolutions, recommendations, and reports of officers and committees are among the matters coming before the Assembly for action

[14] *N E.A. Information, Personal Growth Leaflet 140.*

Affiliated with the N.E A. are forty-eight state education associations and that of the District of Columbia. A local education association or teachers' organization within a state, territory, or district may affiliate with the N.E A The annual state association dues are $10. Local affiliated groups pay $5 annually.

The N E A sponsors four groups of committees: convention, standing, cooperative, and special There are also commissions and councils. Representative of the commissions are these: (1) Education Policies Commission, appointed by the N E.A. and the American Association of School Administrators; (2) Joint Commission on Education and Resources of the N.E.A and the Progressive Education Association, which studies human and natural resources; and (3) Legislative Commission, which works for federal aid to education. The National Council of Teacher Retirement directs its efforts toward the enactment of retirement legislation in states

The N.E A has 27 departments and the National Council of Education. More than 200,000 active members are enrolled There are also more than 825,000 affiliated members The regular annual membership of $2 includes nine issues of the *Journal*. Upon payment of $5 a year the Research Bulletins and the *Annual Volume of Addresses and Proceedings* are added. A $100 life membership carrying all the privileges of the $5 annual membership may be secured through payment of $10 annually for 10 years

In addition to the publications mentioned, the N.E A also issues Departmental Yearbooks, Reports of Committees and Commissions, and Personal Growth Leaflets.

THE AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS.[15] The American Association of School Administrators, formerly the Department of Superintendence, is a department of the National Education Association of the United States.

Membership is open to all members of the N E.A who are engaged in supervisory and administrative positions.

[15] Leaflet entitled *The American Association of School Administrators*, issued by the Association

The membership fee of $5 a year includes the Yearbook, Official Reports of Conventions, the Research Bulletin of the N.E.A., and classified lists of educational periodicals.

American Council on Education. The American Council on Education was organized in 1918 by representatives of a number of national associations "as an energy center of cooperation"

In 1941 the Council included 39 constituent members, each of which represented a national or regional association. There were 44 associate members of the Council. In general they represent smaller educational organizations.

In addition to those mentioned there were 417 institutional members, including representatives of colleges, universities, teacher educational institutions, state school systems, and city school systems. The total membership as of December, 1940, was an even 500 persons.[16]

The Grange. L. H. Bailey refers to the Grange, officially the Order of Patrons of Husbandry, as "the great farmer's organization"[17] It was organized in Washington, D C, in December, 1867.

The Grange is a secret fraternal organization for men, women, and youth interested in agriculture and rural life Its objectives are fraternal, social, and educational. It is strictly nonpartisan, though it presents the views of its membership to state legislatures and Congress through authorized spokesmen The Grange also makes mutual fire insurance available and encourages cooperative purchase of supplies

At one time the Grange exerted strong leadership More recently its influence is said to be less widespread. However, the farmers' movement for better rural life for which the Grange has long stood continues onward through this and other channels

The American Farm Bureau Federation. Before the close of World War I several states had organized federations of county farm bureaus. The American Farm Bureau

[16] Data furnished by George F Zook, President, in *A V A Journal and News Bulletin*, February, 1941.

[17] L H Bailey, *Cyclopedia of American Agriculture*, Vol 4, pp. 294-7

Federation claimed a membership of over a million in 1921.[18] According to B. H. Hibbard, those who laid the foundation had no thought of a widespread farmer movement but rather sought to promote agricultural extension work The Bureau has cooperated with the Grange but not always with the Farmers' Union

THE NATIONAL CONGRESS OF PARENTS AND TEACHERS [19] The parent-teacher movement in the United States is sponsored nationally by the National Congress of Parents and Teachers, which was founded February 17, 1897, in Washington, D. C., under the name of the National Congress of Mothers. The Congress currently has a membership of more than two million persons Membership is secured through joining a local parent-teachers' association (P T.A.).

The National Congress of Parents and Teachers has its headquarters at Washington, D C There are state branches, with districts and councils, and local units, usually called parent-teacher associations

Among the objectives of the P T A are the following:

> To promote the welfare of children and youth in home, school, church, and community
>
> To raise standards of home life
>
> To secure adequate laws for the care and protection of children and youth.
>
> To bring into closer relation the home and the school, that parents and teachers may cooperate intelligently in the training of the child.
>
> To develop between educators and the general public such united effort as will secure for every child the highest advantages in physical, mental, social, and spiritual development

The organization is nonpartisan, nonsectarian, and noncommercial. Membership is voluntary. The work of the Association is shared by parents and teachers.

Guidance, vocational education, placement, and follow-up activities can often be bettered through cooperation secured through or with active parent-teacher organizations. Audio-

[18] "American Farm Bureau Federation," *Encyclopaedia of the Social Sciences*

[19] By-laws, quoted in *Parent-Teacher Services to Education*, Department of Public Instruction, Commonwealth of Pennsylvania, Harrisburg, 1939

sensory education and extra-curricular activities provide other points of emphasis Problems of learners and character-building activities of several sorts are also of interest to parents as well as teachers.

OFFICE OF EMERGENCY MANAGEMENT In compliance with Executive and Administrative Orders most of the newly created war agencies were established in or coordinated through the Office of Emergency Management.[20]

The Office of Emergency Management was established on May 25, 1940 Its functions are to (1) assist the President in the clearance of information related to the war effort; (2) maintain liaison between the President and agencies concerned with the war in order to secure maximum utilization and coordination; and (3) perform such other duties as the President may direct. A brief description of some of the agencies most closely connected with the program of vocational training related to the war program follow·

1. *National War Labor Board* This Board is made up of 4 persons representing the public, 4 representing employees, and 4 representing employers. A number of alternates serve in the absence of the members.

The purpose of the War Labor Board is to adjust labor disputes in war industries The general procedure for settling disputes is set forth· (*a*) The first resort is to direct negotiation or to procedures provided in a collective bargaining agreement (*b*) If not successful the Commissioner of Conciliation of the Department of Labor is notified provided he has not already participated (*c*) If the dispute is not promptly settled by conciliation the Secretary of Labor is required to certify the dispute to the Board, with the provision, however, that the Board after consulting with the Secretary may take jurisdiction of the dispute on its own motion After it takes jurisdiction the Board is required to determine the dispute, using, if it desires, mediation, voluntary arbitration, or arbitration under the rules of the Board

2. *The War Manpower Commission.* The War Manpower Commission was established within the Office of

[20] *United States Government Manual,* Fall, 1942, pp. 56-144 See also Chapter XIII, "National Labor Relations Board"

Emergency Management by Executive Order of April 18, 1942 Among the purposes of the Commission are to·

*a.* Formulate plans and programs and establish basic national policies to assure the most effective mobilization and maximum utilization of the Nation's manpower in the prosecution of the war, and issue such policy and operating directives as may be necessary thereto

*b* Estimate the requirements of manpower for industry, review all other estimates of need for military, agricultural, and civilian manpower, and direct the several departments and agencies of the Government as to the proper allocation of available manpower

*c.* Determine basic policies for, and take such other steps as are necessary to coordinate the collection and compilation of labor market data by Federal departments and agencies

*d.* Establish policies and prescribe regulations governing all Federal programs relating to the recruitment, vocational training, and placement of workers to meet the needs of industry and agriculture.

*e.* Prescribe basic policies governing the filling of the Federal Government's requirements for manpower, excluding those of the military and naval forces, and issue such operating directives as may be necessary thereto.

*f* Formulate legislative programs designed to facilitate the most effective mobilization and utilization of the manpower of the country, and, with the approval of the President, recommend such legislation as may be necessary for this purpose.

All federal departments and agencies having functions relating to the recruitment or utilization of manpower must conform to such policies and directives as the Chairman of the War Manpower Commission may prescribe in the execution of the powers vested in him.[21]

3. *The War Production Board* was created by Executive Order on January 16, 1942, and amplified by subsequent orders. Its function is to exercise general direction over war procurement and production It also determines policies, plans, procedures, and methods in respect to war production. The functions and powers vested in the Supply Priorities and Allocation Board come within its province. The Board is responsible likewise for supervising the Office of Production Management and for directing it to make such changes as may be needed.

The Joint Army and Navy Munitions Board reports to the President through the Chairman of the War Production

[21] *Ibid.*, pp 85-8

Board. The Chairman also reports to the President on the progress of war procurement and production and performs such other duties as the President may direct.

The personnel, records, property, and funds of the Office of Production Management were transferred to the War Production Board when the former was abolished.[22]

## FOR DISCUSSION

1 Why, when, and where was the National Society for the Promotion of Industrial Education formed?

2 Toward what objectives were many of the activities of the National Society directed between the years 1912 and 1917?

3 Why was the National Society for Vocational Education evolved from its parent society?

4 Describe the development of the Vocational Education Association of the Middle West

5 Draw a diagram illustrating the ancestry of the American Vocational Association and describe the Association

6 How is the Executive Committee of the A.V.A constituted and what are its chief duties and functions?

7 Name a half-dozen or more associations or groups affiliated with or related to the A V.A.

8 Name and describe the functions of several standing or special committees of the A V.A.

9 Describe the nature of the official organ and other publications of the A.V A

10. Describe the form of organization and functions of the state vocational association in your own state.

11. Enumerate and describe the major services rendered by the A V.A.

12. Compare the interests of state directors of vocational education with those of (*a*) teacher-trainers, (*b*) state supervisors

13 Describe the National Council for Business Education.

14 Describe the purposes and form of organization of the American Home Economics Association.

15. Tell how the N E A developed and describe its functions.

16 What services are rendered by the American Association of School Administrators?

17 Describe the make-up and function of the American Council on Education.

18. Compare the functions of the Grange with those of the American Farm Bureau Federation

19 Enumerate the objectives of the National Congress of Parents and Teachers and describe activities of your local parent-teacher association

20 Describe the functions of the National War Labor Board

21. What are the purposes of the War Manpower Commission?

22 How was the National Committee on Education and Defense organized?

23 Describe the functions of the United States Office of Education Wartime Commission

[22] *Ibid.*, pp 88-97.

24 Name and describe the functions of one or more local organizations whose work has a bearing on vocational education.

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*Journal of the National Education Association of the United States of America*
*The Nation's Schools*

# CHAPTER 11

## *Objectives and Policies of Employer Associations and Labor Organizations*

The ever-changing patterns of modern occupational life call for an understanding of the goals, objectives, and aspirations of associations of employers and federations and organizations of employees Accordingly the purpose of this chapter is to examine the plans of organization, the objectives, and the policies of representative employer associations, more specifically the National Association of Manufacturers of the United States of America and the Chamber of Commerce of the United States, and also of two prominent labor organizations, the American Federation of Labor and the Congress of Industrial Organizations

THE DEVELOPMENT OF INDUSTRIALISM. Modern industrial life is the outgrowth of long centuries of evolution For our purposes we may think of three stages of progress· (1) the period of self-sufficing household economy in which each social unit, such as the family, clan, or tribe produced what it consumed, much as primitive people do today, (2) the period of commerce, trade, and handicraft economy, the latter built upon the craft guilds of the Middle Ages In this stage production developed for local and then for more distant markets rather than for home consumption only; (3) the last stage, industrial economy in which power-driven machines and tools largely supplement and to an extent replace hand tools and handicraft methods of work.

We are now in this third stage, in which steam, water, and other power implement human effort. It is appropriately termed the machine age, power age, chemical age, and air age, depending upon on what phase of modern development emphasis is sought The rise and development of modern industries during the last one hundred years, and more par-

ticularly within the last fifty, owe much to science, research, business organization, and management

Today the American Federation of Labor and the Congress of Industrial Organizations report a combined membership in excess of eleven million persons. We also have influential employers' associations, trade associations, and many other associations organized and operated for a variety of purposes.

GROWTH OF EMPLOYERS' ASSOCIATIONS. Strange and paradoxical as it may seem, the guilds of the Middle Ages were the forerunners not only of labor organizations but also of employers' associations—that is, groups composed of or fostered and controlled by employers. At first craftsmen who belonged to guilds produced their own goods and also sold them. They served as producers and as merchants Later, when more extensive tools and equipment became necessary and more resources were needed to increase production, some persons became master workmen or employers, others worked for them as apprentices or as journeymen, and a third group became salesmen or merchants. Both in Europe and in the United States, more specifically in Massachusetts, New York, and Pennsylvania, craft guilds functioned as employers' associations

Strictly speaking, employers' associations differ from chambers of commerce, trade associations, exchanges, and pools, but the differences are not always clearly defined. Employers' associations frequently have a number of objectives Perhaps chief among them are· (1) to further employers' interests in labor matters, (2) to conduct employment relations without outside interference; and (3) to extend the scope of their business or service

THE NATIONAL ASSOCIATION OF MANUFACTURERS. This association was organized in Cincinnati, Ohio, January 22, 1895. Branch offices are maintained at Washington, D. C., and at San Francisco.

Among the objectives of the association are: (1) promoting industrial interests; (2) fostering foreign commerce of the United States; (3) bettering employer-employee relations; (4) protecting the individual liberty and rights

of employers, (5) disseminating information among the public about individual liberty and the private ownership of property, and (6) supporting legislation that furthers the principles for which the association stands

The membership consists of individuals, firms, and corporations engaged in manufacturing. Annual meetings are usually held in December; regional ones, throughout the year.[1]

The N.A.M. has a membership of at least 7600 members, constituting over 60 per cent of all persons gainfully employed in manufacturing industries

Among the principles advocated by the N.A.M are the following, which were formulated as a result of the coordinated effort of a committee of eighty-five manufacturers and which are representative of the viewpoints of the association.[2]

The Congress of American Industry believes in the following:

1. Maintenance of individual initiative and free enterprise.
2. The social value of the profit motive as a powerful incentive to productive effort
3. The importance of private savings and investments
4. Reduction of the controllable costs of production and distribution in order to stimulate prices and increase consumption.
5. Extension of research in order to develop new and better products at lower prices with a view toward increasing production, consumption, and employment
6. Maintenance of fair and equitable employer-employee relations.
7. Maintenance of equitable wages in order to promote production, employment, and higher incomes to workers
   a. Reasonable hours of employment as a means of bringing about greater productive opportunities
   b. The greatest possible regularity of production as a means to continuity of employment
   c. Where regularity of production is impractical, the greatest possible continuity of employment through a reasonable variation of working hours.
8. Enlightenment of the public as to the obstacles which obstruct progress and as to the measures needed to overcome such obstacles

[1] *Scientific and Technical Societies and Institutions of the United States*, Bulletin 106, National Research Council, National Academy of Sciences, Washington, D C, pp 206-7, 1942

[2] Adopted by the Congress of American Industry, published by the N.A.M., December, 1939. See the report for more retailed discussion.

The National Association of Manufacturers holds that armonious relations between labor and management in ach industrial enterprise is in the interest not only of the nployer and the employee, but of the whole people" It dds that: "Beyond the give and take of 'a full day's work or a full day's pay' lies the broad responsibility for both arties for a healthy and prosperous national economy ... No single method can be applied to all industrial units or o all labor groups ... The functions of industry cannot be erformed under conditions of litigation and conflict."

Monthly deliberations of leading manufacturers are nade available in N.A.M. committee reports, which are vailable from the Division of Publications.[3] The following eports are currently available: *Industrial Practices, Government Finance, Employment Relations, Tariff, Working Conditions, Agricultural Cooperation.* Other releases available are *Yardsticks of American Progress* and *Workers Over 40.*

Educators may be interested in the *You and Industry* booklets, which came out in 1937 and have since been revised and issued as a new series. Some of the titles follow:[4]

1. *The Freedoms We Defend*
2. *Pattern of Community Progress*
3. *Inventive America*
4. *Taxes and What They Buy*
5. *Farm and Factory—Building America*
6. *Our Material Progress*
7. *Our Social Progress*
8. *Business in a Democracy*
9. *The Profession of Management*
10. *What Makes Jobs*
11. *Employer-Employee Cooperation*
12. *"You and Industry" Study Guide*

*N.A.M. views on wages and hours.*[5] The associatio through its report, calls the attention of industrial manage

[3] Address National Association of Manufacturers of the United States America, 14 W 49th Street, New York, New York

[4] Available from National Association of Manufacturers of the Un States of America, 14 W 49th Street, New York, New York

[5] *Declaration of Principles Relating to the Conduct of American Indu* pp 13-7.

to "paying wage rates in keeping with rates in the industry and with due regard to conditions in the community." It is pointed out that high wage rates in themselves do not provide the employee with a high level of income, because high wage rates may result in low income through affecting volume of output and continuity of employment. Decreases in the volume of production and consumption may result either from manufacturers setting prices too high or from employees demanding uneconomical wages

The association holds it to be not practical for most manufacturing enterprises to provide an established annual wage rate for employees because of the unavoidable hazards of fluctuations in volume "High income for the individual employee, continuity of employment, and employment itself, depend upon lowering the costs of production, expanding the market for goods and services, and creating thereby more and better jobs"

The N.A.M committee report states that the practical applications of American inventive genius have made it possible to produce goods and services in increasing amounts with a steadily decreasing number of hours of work for each unit of production In the judgment of the committee there has been in recent years a tendency to reduce hours of work beyond the point justified by the increase in productive efficiency.

There is not only the problem of long-term adjustment of working hours to productive efficiency but also of spreading available work in periods of widespread unemployment The principle of sharing the work is advocated only as an emergency measure and then only in the light of known local conditions.

The practice of diagnosing and forecasting, so far as is feasible, the future demand for goods or services is advocated as a means of regularizing employment and of overcoming some or all of the ill effects of seasonal or variable demand. Unavoidable irregularity of employment calls for a variation in either the weekly hours of work or in the number of employees. The interests of the consumer, the employee, and the investor are interrelated

THE CHAMBER OF COMMERCE OF THE UNITED STATES. Chambers of commerce are bodies of manufacturers, business men, merchants, and traders organized to further the interests of their members. There are chambers of commerce at the local, state, national, and international levels

The Chamber of Commerce of the United States is a national federation of business organizations It was established in 1912, primarily as a vehicle for the expression of national business opinion on important economic questions.

For the convenience of its members the chamber maintains twelve service departments, each serving a major field of business activity. Headquarters are at 1615 H Street, N. W., Washington, D. C.

Currently the chamber is centering its attention upon war production and related problems. Many regional conferences are sponsored. Spokesmen appear before Congressional committees and other agencies dealing with the war effort.

Among the publications sponsored by the chamber are *The Nation's Business*, a monthly publication; the *Washington Review*, appearing bimonthly; special legislative bulletins; and an extensive variety of committee reports

A statistical study reveals that the fifteen activities most frequently carried on by three hundred thirty trade associations are conventions and meetings, cooperation with other organizations, government relations, informal service, trade practices, statistics, public relations, employer-employee relations, trade promotion, standards and standardization of product, field service, marketing, taxation, accounting, and commercial arbitration.[6]

POLICIES OF THE CHAMBER OF COMMERCE. The policies of the Chamber of Commerce of the United States are formulated by resolutions adopted at its meetings or by direct referendum They are modified and added to from time to time Their extent precludes full treatment here Therefore a limited selection is made, the selection being restricted to policies that may be of special interest to stu-

[6] *Association Activities*, Trade Association Department, Chamber of Commerce of the United States

dents of vocational education.[7] The opinions expressed are quoted from *Chamber Policies*

1. *Importance of production* The increase in production and consumption is the only process through which the standard of living may resume its upward course

2. *State rights* It is a cardinal principle that all rights not specifically granted to the federal government are reserved to the several states . . . this principle has been increasingly infringed by federal encroachment.

3 *Unfair competition* The Chamber has a long record of advocating legislation and enforcement of legislation to protect all business enterprise against unfair competition

4 *Labor Relations Act.* The practical operations of the Act have amply demonstrated that, in its present form, the Act is a serious deterrent to recovery

5 *Closed shop* There should be removed from the law the sanction of the closed shop, which the law not only endorses but for the accomplishment of which it provides effective procedure

6. *Strikes* Statutory promotion of collective bargaining should be supported by legislation making illegal resort to strikes for the same purpose.

7 *Political contributions.* Inasmuch as corporations are not permitted to make political contributions, it should be in order for employees' organizations to be similarly restricted

8 *Wage-Hour Act.* Experience with the Wage-Hour Act has demonstrated the impracticability of such a measure in its application to widely varying conditions

9 *Government contracts.* The Public Contracts Act (Walsh-Healy Act) should be repealed.

10. *Federal grants and aids.* The demand for federal funds for the benefit of states and local communities is an important factor in excessive federal expenditures. These federal expenditures not only swell the federal budget, but also increase state and local expenditures through enlarged maintenance charges, increased debt charges, and the new expenditures to meet the conditions of the federal contributions Spending agencies which do not have responsibility for raising the necessary funds tend to extravagance and waste

11 *Social security* Voluntary measures for giving to workers greater security in their old age and against the hazards of unemployment have been advocated by the Chamber . . The Social Security Act is a federal compulsory enactment for such purposes In this Act are provisions which should be changed

12. *Education.* The public education system of each state should be financed from funds raised within the state.

OPEN, CLOSED, UNION, AND PREFERENTIAL SHOPS. With regard to conditions of employment, business and

[7] *Chamber Policies*, 1940

industrial establishments are commonly classified into four types: open shop, closed shop, union shop, and preferential shop.[8] Since one of these terms has already been referred to and some others will be mentioned later, this may be a good time to explain them.

An open shop is an establishment where persons can secure jobs regardless of whether they are or are not members of a labor union.

A closed shop is an establishment where jobs are denied to nonunion persons and in which employees are dismissed who fail to remain in good standing in their union.

The term union shop applies to establishments having the same conditions of employment as the closed shop, with the exception that the employer may hire nonunion workers with the understanding that they must join the union within a specified time, usually 15, 30, or 60 days from the date they are hired, and furthermore that they remain in good standing in the union Unless they comply with these requirements the employer is compelled to discharge them

Preferential shop refers to an establishment which operates under an agreement between an employer and a union to the effect that preference must be given to union members, if they are available, in hiring and re-employment. At times the agreement may specify that union members shall be given preference in promotion, distribution of work, and dismissals. The preferential shop is technically not a closed shop, but in practice the approximation may be close. So long as the union can supply workers within a specified time limit, only union members are employed.

To remain in good standing members of unions must keep their dues, assessments, and other required payments paid up and must not violate their union agreements.

TYPES OF UNIONS. By way of background for the discussion of labor unions and their policies, let us consider the more common types One way of classifying them is on the basis of area served—for example, local, regional, national, and international. As used in the United States,

[8] *The Closed Shop*, Employment Relations Department, National Association of Manufacturers

the term international currently refers to unions having memberships in the United States, Canada, and in some instances countries south of the Rio Grande.

Another way of classifying unions is according to their form of organization. The two chief types are craft unions and industrial unions

1. *Craft unions.* A craft union is organized on the basis of crafts, trades, or occupations. The American Federation of Labor (A F. of L.) is a federation of many more or less independent craft unions, each of which serves workers in a particular trade or occupation. Consequently such trade groups as carpenters, joiners, machinists, and electricians restrict their membership to persons learning or following a specific occupation

Craft unionists believe that this form of organization is desirable because workers in specified trades or occupations are said to have backgrounds of experience and interest that are more nearly alike than if the members were not all following the same vocation Those who favor craft unions hold that this form of organization promotes a sense of solidarity and unity difficult to develop between people of different trades or occupations since the latter have different standards, problems, and views.

Craft unionism is sometimes spoken of as being horizontal. This means that all union members of a certain kind, say machinists, belong to the machinists' union, even though employed in a variety of industries

2. *Industrial unions.* By an industrial union is meant one that includes all employees of a company or an industry, without regard to the craft, trade, or occupation they follow. This provision for the inclusion of workers of all kinds is one of the chief characteristics of industrial unions—one that distinguishes them fundamentally from craft unions. However, since both forms of unions probably have more similarities than they have differences, it would not be surprising to see them unite.

In the industrial union unskilled, semi-skilled, and skilled workers of many kinds unite and hold membership in the same union. This substantially increases the number of individuals who are eligible for membership in a union in a

plant, business, or industrial establishment and correspondingly increases their bargaining power

A typical example of an industrial union is the United Mine Workers' Union, to which miner's helpers, full-fledged miners, truck drivers, maintenance men like carpenters, painters, and electricians, and others belong. The Congress of Industrial Organizations (C.I O.) is made up of a number of large industrial unions. Their form of organization is sometimes spoken of as being of the vertical type, meaning that high and low, unskilled or skilled, may be members.

The term standard union has been used in the past with reference to unions affiliated with the A F of L. and the four large independent Railway Brotherhoods It remains to be seen how long it will be before the Congress of Industrial Organizations will also be classified the same way by members of the A F. of L.[9]

THE AMERICAN FEDERATION OF LABOR. The Federation of Trades and Labor Unions was formed in Pittsburgh, Pennsylvania, on November 15, 1881 Out of this organization grew the American Federation of Labor, of which Samuel Gompers was the widely respected president for many years until his death in 1924

The American Federation of Labor consists of affiliated organizations of national and international unions, comprising local unions, departments, directly affiliated local unions, state federations, city central bodies, or local federations of trade unions, and of national councils composed of federal union members in the same industry or occupational field. The Federation has no powers other than those granted it by those who compose it.

The officers of the Federation consist of a president, thirteen vice-presidents, a secretary, and a treasurer. The annual convention is the sovereign governing body. The proceedings of these conventions represent the will of the membership. Coercive measures are not used to prevent withdrawal or secession from the Federation When a national or international union affiliated with the A.F. of L.

[9] See *Industrial Versus Craft Unions,* Julia E. Johnsen, Compiler, for an extensive bibliography and selected readings.

decides to withdraw, the larger organization has no power to enforce its remaining within the Federation.

POLICIES OF THE AMERICAN FEDERATION OF LABOR. The A.F. of L. has long worked for shortening the working day in keeping with the increased productiveness of machinery. In the United States demands of this sort preceded the forming of the A F. of L. by fifteen or twenty years, but the Federation gave support and strength to the movement.

More effective inspection of workshops, factories, and mines is favored The A F. of L has consistently opposed child labor and worked to eradicate it in gainful employments. It stands "unalterably and unequivocally in favor of free assemblage, free speech, and free press."

Samuel Gompers called attention to the fact that the labor movement in Massachusetts secured the enactment of the law creating the first public schools in the United States. Under his leadership the A F of L "favors the enactment of further measures for general education and particularly for vocational education in useful pursuits." One of the basic policies of organized labor is to secure for workers a larger share of the products of their labor

Gompers expressed the belief that as the understanding of employers concerning workmen increases, improved employer-employee relations may come. He added, however, "What workingmen of America have obtained in improved conditions, higher wages, shorter hours of labor, was not handed to them on a silver platter." He acknowledged that "there are some exceptions to the general rule that the achievements of the American labor movement have been accomplished by the organized struggle of the workers against their employers."

In the following words Gompers expressed his evaluation of the trade union movement and his own high ideals and goals of unionism·

The trade union movement fosters education and uproots ignorance, shortens hours and lengthens life, raises wages and lowers usury, increases independence and decreases dependence, develops manhood and balks tyranny, discourages selfishness and establishes fraternity, induces liberality and reduces prejudice, creates rights and abolishes wrongs,

lightens toil and brightens man, makes the workers' workshop safe and brighter; cheers the home and fireside and makes the world better.

A.F OF L GUIDES FOR VOCATIONAL EDUCATION.[10] Through its *Guide for Vocational Education* the A F. of L. has made clear its attitude on matters relating to vocational education It will be feasible here to touch but briefly upon what appear to be the major points. These are·

1. Teachers should be occupationally competent and up-to-date in their trade or occupation.
2 While the Smith-Hughes Act specifies 14 years as the minimum entrance age in vocational schools, this is too young now that entrance ages to industry have been raised.
3 Seriously minded vocational students should not be handicapped by putting failing students not interested in or capable of learning trades in the classes with them.
4. Classes should be limited to persons who can reasonably expect to find employment in the occupation taught
5. Schools should avoid training for jobs in which local employment conditions and wages are below standard, and for which there are few outside demands.
6 Vocational classes should not be limited to students from nonunion homes
7 The schools should work hand-in-glove with the United States Employment Service, which should be well qualified for its service.
8 Vocational training should be given to persons who have the capacity and interest to learn occupations for which there is a reasonably certain demand at fair wages
9. The product of vocational schools should be up to market standard, but the product should not be sold on the open market. The representative advisory committee should help the school to decide what to make and how to dispose of it.
10 If the cooperative plan is used care must be taken to make sure the learners get the kinds of instruction on the job that labor can approve
11. The vocational schools should cooperate with the public employment service so that the students will get suitable guidance and help in job placement
12 The equipment of vocational schools should be up-to-date.
13. Every safety and health precaution should be taken
14. Instruction should be available to full-time workers as well as to youth. Adults often need short, intensive refresher training
15. Policies should be worked out with the aid of representative advisory committees
16. The labor movement should keep in close touch with local and

[10] *Guide for Vocational Education*, published by the American Federation of Labor

state supervisors of vocational education, state vocational associations, and the American Vocational Association

17. State and federal governments are not spending too much money for vocational education However, that money should be spent for vocational education that labor approves

LABOR'S ATTITUDE TOWARD GENERAL AND VOCATIONAL EDUCATION. As an aid to students of education as well as to members of organized labor, Dr Spencer Miller, Jr. has made a study of the resolutions and official pronouncements of the American Federation of Labor [11] His study shows that education was made an important part of the labor program from the time the first voluntary association of working men was formed in Philadelphia in 1828. The records of the A.F. of L convention proceedings show that the Federation has consistently advocated free public education and has maintained that "education of the people is a fundamental principle upon which the success of every proposed piece of social reform depends "[12]

Free schoolbooks were urged in 1900. Three years later a permanent committee on education was appointed In 1908 the Executive Committee directed that the Federation appoint a committee of fifteen members to make an investigation of industrial education. Industrial education under public school auspices was favored In 1911 public night schools were advocated.

The federal government was urged to provide generous financial aid to industrial education in 1915. Free state universities were also advocated during the same year.

In 1918 a reorganization of public schools, which would better serve the interests of the children of all the people, was advocated Tuition-free junior colleges and continuous medical and dental inspection throughout the schools were also advocated Wider use of school plants was favored The development of vocational guidance and vocational education in urban and rural areas was urged

In 1919 the Smith-Hughes program was reindorsed. The view was expressed that textbooks should refer to labor's

[11] Spencer Miller, Jr , *Labor and Education* A brief outline of the resolutions and pronouncements of the American Federation of Labor in support of the general principles and practices of education, 1881-1938

[12] *Ibid*, p 8 , Third Convention, 1888

activities in connection with public education, collective bargaining, child labor, women in industry, hours of labor, minimum wage rates, political action, union shop, initiative and referendum, equal suffrage, convict labor, health, and workmen's compensation. The need for advisory committees for vocational education was reaffirmed.

In 1923 representatives of labor were urged to consider it a part of their public duty to serve on local boards of education and on those of state universities In 1930 the A.F. of L. advocated tying in vocational training and retraining with the unemployment program

Wisconsin was congratulated in 1929, as were California, Illinois, and Pennsylvania in 1933, for passing anti-"yellow dog" contract laws.

In 1934 it was recommended that the standard wage scale for teachers "be at least the wage scale received by skilled labor." Federal aid was again advocated to equalize educational opportunities. Attention was called to the breakdown of local tax systems in support of education.

In 1938 the principle of federal grants-in-aid for vocational education was reaffirmed, and a sound program of vocational education was urged, including:

1. A well-rounded education, not too narrowly conceived, particularly for younger persons.
2. The preservation of labor standards in all vocational schools.
3. Limiting highly specialized training before age 18
4. Adequate vocational training for Negroes
5. Representative advisory committees in all vocational schools and active committees in all labor bodies affiliated with the A F of L.

REPORT OF EXECUTIVE COUNCIL, A.F. OF L[13] The report expressed concern over the growing danger from inadequate appropriations for schools Shortages of teachers, it was held, grew largely out of low salaries paid. One state spent less than $24 a pupil and paid an average salary of $559, whereas another spent $135 a pupil and paid an average salary of $2604.

Attention was called to the fact that the American Federation of Labor and the United States Office of Education

[13] Report of the Executive Council of the American Federation of Labor to the 62nd annual convention, Toronto, Canada, October 5, 1942

are agreed on the principle that programs of vocational education should be established on the basis of actual needs, and only upon the advice and counsel of a representative advisory committee.

The committee believes that the training resources of industry and the job environment should be used as fully as possible in vocational training, and that the training facilities provided in vocational schools should not be expanded more than needs justify.

THE CONGRESS OF INDUSTRIAL ORGANIZATIONS. The Congress of Industrial Organizations grew out of the Committee for Industrial Organization formed in November, 1935, when the presidents of eight unions of the A F. of L. adopted a resolution favoring industrial organization as a policy. John L. Lewis was chairman of the committee. On September, 1936, the executive council of the American Federation of Labor suspended the C.I.O. unions, ten in number at that time.

The Congress of Industrial Organizations held its constitutional convention in Pittsburgh, Pennsylvania, in November, 1938. John L. Lewis addressed representatives of thirty-two national and international unions, as well as delegates representing organizing committees and state, county, and local industrial unions [14]

The objectives of the C.I.O., as set forth in its constitution, are:[15]

*First.* To bring about the effective organization of the working men and women of America regardless of race, creed, color, or nationality, and to unite them for common action into labor unions for their mutual aid and protection.

*Second* To extend the benefits of collective bargaining and to secure for the workers means to establish peaceful relations with their employers, by forming labor unions capable of dealing with modern aggregates of industry and finance.

*Third.* To maintain determined adherence to obligations and responsibilities under collective bargaining and wage agreements.

*Fourth* To secure legislation safeguarding the economic security and social welfare of the workers of America, to protect and extend our

[14] *The World Almanac and Book of Facts,* 1942, p 115

[15] *Constitution of Congress of Industrial Organizations,* 1941

democratic institutions and civil rights and liberties, and thus to perpetuate the cherished traditions of our democracy

The C.I.O. is composed of affiliated national and international unions, organizing committees, local industrial unions, and industrial union councils.

The officers consist of a president, six vice-presidents, and a secretary. The president presides over conventions and meetings of the Executive Board and serves as chief executive officer. The Executive Board enforces the constitution, carries out the instructions of the convention, and between conventions directs the affairs of the Organization. The convention is the supreme authority of the Organization.

C.I.O. headquarters are 718 Jackson Place, N. W., Washington, D. C. The official organ is the *C I O News*. It also publishes the *Economic Outlook*, a monthly survey of current economic facts from labor's point of view.

RAILROAD UNIONS. Reference has been made earlier in this chapter to the four large independent railroad unions. These are sometimes referred to as the "big four." Together with seventeen other unions they make up the standard unions in the field. The "big four" are the Brotherhood of Locomotive Engineers, the Brotherhood of Locomotive Firemen and Enginemen, the Brotherhood of Railway Trainmen, and the Order of Railway Conductors. Seven shop crafts are included in the seventeen unions previously mentioned. There are also a number of less well-known independent railway unions.

NEGROES IN LABOR UNIONS. There has been a distinct increase in Negro unionists. According to data prepared by the Labor Research Association, they numbered approximately 100,000 in 1929 and 250,000 about six years later. It was estimated that the C.I.O. enrolled 250,000 between 1936 and 1939. Many of them are in the steel industry, the automobile industry, and more recently in war production industries. Hod carriers' unions and the Longshoremen's Association have an appreciable number enrolled.[16]

[16] *Trade Union Facts*, prepared by Labor Research Association, International Publishers, New York, 1939.

WOMEN IN UNIONS. Women form a large percentage of the employees in a number of industries, such as clothing, textile, shoe, shirt, hosiery, and foods industries. With recent progress in the unionization of mass-production industries the number of women unionists has increased considerably.

Wives, mothers, daughters over eighteen years of age, and girls engaged to be married to union members may belong to women's auxiliaries Among the activities of auxiliaries are included social, recreational, and educational functions. They may also furnish food to persons involved in industrial disputes and may assist in picketing [17]

Under the war production program the demand for women workers is increasing It is difficult to foresee what effect the more extensive use of women in industry may have upon employment practices in postwar years. Many persons who are familiar with the work done by women who are gainfully employed predict that they will make a place for themselves to a larger extent than was the case prior to 1940

## *FOR DISCUSSION*

1. Describe three stages in the development of industrialism.

2 Describe the guilds of the Middle Ages and explain how they relate to modern employers' and labor organizations

3 Mention and explain six principles advocated by the National Association of Manufacturers.

4. What are the views of the N A M on wages and hours for workers?

5 On what basis are chambers of commerce organized?

6 Distinguish between the National Association of Manufacturers and the Chamber of Commerce of the United States.

7. Give the views of the Chamber of Commerce on (*a*) the Labor Relations Act, (*b*) the closed shop, (*c*) strikes, (*d*) political contributions; (*e*) federal grants-in-aid, (*f*) education

8 Explain each of the following open, closed, union, and preferential shop.

9 Distinguish between craft and industrial unions.

10 Give a brief history of the American Federation of Labor

11 Explain the form of organization of the A F of L

12. What was Gompers' concept and evaluation of the trade union movement?

13 Mention six or more guiding principles suggested by the A F of L for the conduct of vocational education.

14 Explain the attitude of organized labor toward (*a*) general education, (*b*) vocational education

[17] *Ibid*

15. Give six or more specific recommendations bearing on vocational education made at annual conventions of the A F of L

16 Describe the objectives and rise of the Congress of Industrial Organizations

17. Discuss railroad unions

18 Report upon Negroes in labor unions

19. In what industries are women unionists most common?

20 Make a list of the names of the following:

*a*. Secretary, United States Department of Labor
*b* Secretary of Labor in your state
*c*. President, National Association of Manufacturers
*d*. President, Chamber of Commerce of the United States
*e* President of your state chamber of commerce
*f* President of the American Federation of Labor
*g* President of the Congress of Industrial Organizations
*h* Prominent local employers
*i* Prominent local labor leaders

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# CHAPTER 12

## *Labor Laws and Labor Relations*

The purpose of this chapter is to discuss labor laws and labor relations Perhaps few topics are more controversial, and few, if any, appear to be more vital to the protection and perpetuation of democracy and freedom Labor laws and labor relations can either make or break a nation. They have profoundly influenced the welfare and progress of people for generations It would appear that an appreciative understanding of labor laws and relations is basic to intelligent and wise handling of problems that affect workers, employers, consumers, and government at all levels Employment and unemployment, hours of labor, fair wages, safety and health, and good personal relationships between the employed and those who employ are vitally important matters to us individually and collectively

Certain responsibilities with reference to labor laws are delegated to the United States Department of Labor and to state departments of labor or of labor and industry. Without going into detail let us first look into the functions and form of organization of the United States Department of Labor

THE UNITED STATES DEPARTMENT OF LABOR. The federal Department of Labor was created by an act of Congress approved March 4, 1913. It was first established as a Bureau of Labor in 1884, was made an independent department shortly thereafter, but without executive rank, and for a time was a bureau in the Department of Commerce and Labor

The Department of Labor has jurisdiction over such matters as promoting the welfare of wage earners, improving their working conditions, and helping to advance their opportunities for profitable employment The department also has responsibilities for child welfare

The principal bureaus of the department are the Bureau of Labor Statistics, Children's Bureau, Division of Labor Standards, United States Conciliation Service, Wage and Hour and Public Contracts Divisions, and the Women's Bureau.[1]

Of these bureaus the Bureau of Labor Statistics is the oldest It is a research and statistical service that compiles factual data upon such topics as estimates of labor needs and labor supply by months for critical industries like shipping, aircraft, machine tool, and ordnance. It also deals with facts relating to wages, cost of living, wholesale and retail prices, industrial disputes, and labor legislation The *Monthly Labor Review, B.L.S. Chart Series,* and other releases are widely used.

The Children's Bureau was created in 1912. Among its functions may be mentioned: (1) to investigate and report upon all phases of child life and child welfare; (2) to administer grants for maternal and child-health services; (3) to promote services to crippled children, (4) to administer child welfare services under the Social Security Act of 1935 and amendments thereto; (5) to administer the child labor provisions of the Fair Labor Standards Act of 1938

The Division of Labor Standards was established by departmental order in November, 1934, and is authorized to develop desirable labor standards in industrial practice, labor law administration, and labor legislation, and to make specific recommendations concerning methods and measures designed to improve the working conditions and the economic position of wage earners. It also is authorized to make available to interested organizations and persons the existing resources of the Department of Labor and pertinent material obtainable from public or private sources.

The United States Conciliation Service of the Department renders expert assistance in settling industrial disputes The Conciliation Service works in close cooperation with the War Labor Board and with other agencies dealing with industrial relations.

[1] *United States Government Manual,* 1942.

The Wage and Hour and Public Contracts Divisions were consolidated by order of the Secretary of Labor on October 15, 1942. One administrator appointed by the President with the advice and consent of the Senate heads the two divisions Under the provisions of the Fair Labor Standards Act of June 25, 1938, the Wage and Hour Division was established Its function is to see that employers engaged in interstate commerce or in producing goods for interstate commerce conform to the wage and hour standards of the Act. It is authorized to enjoin employers who do not meet these standards from further violation of the Act and is also authorized to enjoin the shipment in interstate or foreign commerce of goods produced in violation of the Act

The Public Contracts Division was created to administer the Walsh-Healey Act of June 30, 1936, which requires government supply contracts in excess of $10,000 to contain certain maximum hour, minimum wage, child labor, convict labor, safety, and health stipulations. The Secretary of Labor is charged with the duty of promulgating these standards and supervising their enforcement.

The Women's Bureau was organized in July, 1918, as a war service and was made permanent in June, 1920. Its staff consists entirely of women directed by a woman working in the interests of women. Its chief task is to formulate standards and policies for wage-earning women. It seeks to safeguard the interests of women who are homemakers and mothers as well as those who are wage earners.

State Departments of Labor. The several states and territories have state or insular departments at the state or territorial level that have responsibilities similar to those of the federal Department of Labor. In Pennsylvania, for example, such a department, called the Department of Labor and Industry, is administered by a secretary who is a member of the governor's cabinet, a deputy secretary, and an executive assistant The major services include. (1) labor and safety standards; (2) workmen's compensation and rehabilitation; (3) industrial relations; and (4) employment and unemployment compensation. Of the services mentioned, rehabilitation,

employment, and unemployment compensation are federally aided.

The Bureau of Mediation seeks to improve employer-employee relations. The Bureau of Private Employment Agencies regulates private employment agencies, theatrical booking agencies, and nurses' registries The Bureau of Women and Children has influenced the determination of standards under which women and children are employed. Studies of child labor and of industrial accidents to minors are made.

The Bureau of Research serves the Department of Labor and Industry as a fact-finding unit Costs of living, wages, accidents, and other relevant topics are studied

The Industrial Board has the following five functions: to approve all regulations administered by the Department; to receive and act upon petitions for relief from laws and regulations; to interpret the laws and regulations for the Department and the public, to conduct investigations; and to approve all necessary safety devices to be used in industries and public buildings [2]

The Bureau of Industrial Standards serves as the code-making or regulatory authority of the Department. The Bureau of Inspection believes in the slogans, "A little care makes mishaps rare", "The time to prevent an accident is before it happens"; and "The man who does his work well does it safely."

A comptroller serves as manager of the State Workmen's Insurance Fund. The vocational adjustment of disabled persons is a socially worthy enterprise under the director of the Bureau of Rehabilitation.

THE NATIONAL CHILD LABOR COMMITTEE. Educators, social workers, parents, organized labor, and many other groups have long been deeply interested in protecting children from undesirable influences, among them too early entrance into gainful employment An insight into this broad problem and its present status may be gained by examining the objectives of the National Child Labor Committee.

The Committee was organized in 1904 and incorporated

[2] *Ibid*

by act of Congress in 1907 The purpose of the Committee is to promote social welfare by preventing conditions that are prejudicial to children's health, education, or welfare.

Specifically it seeks (1) to prevent the employment in gainful occupations of children under 14 years of age; (2) to establish a minimum employment age of 16 years for work done during school hours, (3) to foster vocational education and guidance in public schools; and (4) to promote continuation school education

Other aims are to prevent the employment at night of children under 16 years or for more than 8 hours per day or 48 hours or 6 days a week, and also to limit child employment before and after school hours for children attending school

The Committee seeks to establish health standards and to promote health supervision of employed minors Another function is to help prevent the employment of persons under 18 years in dangerous occupations The Committee furthermore seeks the enactment of legislation that will effectuate the principles, standards, and policies for which it stands.[3]

PROGRESS IN CHILD LABOR REGULATION. In 1904 several states had no minimum age limit for gainful employment. Some specified 10, 12, and 13 years. About one-third of the states adopted 14 years At that time compulsory attendance laws did not exist in 15 states Others required 2 or 3 months a year. The 8-hour working day for children under 16 years had been established in 2 states, and about a dozen more legalized the 10-hour day. Night work had few restrictions for those over 14 years of age. Certificates of physical fitness were not required The restrictions on employment in dangerous occupations were few.

By 1930 the scene had changed materially. Every state had some form of a 14 year age limit, though sometimes applicable only during school hours, or to a limited number of occupations All states regulated hours of work, the majority specifying an 8-hour day, but some permitting as

[3] *The National Child Labor Committee*, Publication No 362, 419 Fourth Avenue, New York City

many as 50 to 60 hours weekly. Night work restrictions for children under 16 were almost universal, though these did not always apply to all occupations.

The period of compulsory school attendance was extended considerably in 27 states With some exceptions children in these 27 states were required to complete the elementary schools in order to be employable at 14 years of age.

By 1934 26 states required a physician's certificate of physical fitness before a child of 16 years could get a working permit Most states increased their restrictions governing employment in hazardous occupations.[4]

PRESENT OBJECTIVES OF THE NATIONAL CHILD LABOR COMMITTEE. The Committee, together with other socially minded groups, is striving toward such goals as these:

1 A 16 year age minimum for employment during school hours.
2 An 18 year age minimum in hazardous employments
3 Further limitations on night work for minors
4 Protection for child laborers in agriculture, of whom there are estimated to be 500,000 to 600,000.
5. Restrictions on child labor engaged in such intra-state industries, not now reached, as small bakeries, stores, garages, repair shops, and hotels
6 More adequate protection of newsboys, of whom there are estimated to be about 250,000
7 Prevention of the employment of boys and girls 16 to 18 years of age in dangerous work, unhealthful work, and occupations where substandard wages are paid

THE FEDERAL CHILD LABOR AMENDMENT. Congress in 1924 passed the federal child labor amendment by a vote in the House of Representatives of 297 to 69. In the Senate the vote was 61 to 23 All political parties endorsed it.

At present fewer than the 36 states required to ratify the measure have done so The United States Supreme Court has ruled that since more than one-fourth of the states have rejected it, and since more than a reasonable time to permit them to ratify the measure has elapsed, the amendment proposed in Congress in 1924 is no longer open for ratification [5]

[4] *Ibid*

[5] *The Federal Child Labor Amendment,* National Child Labor Committee, 1940

CHILD LABOR PROVISIONS OF THE WAGE-HOUR LAW. The Wages and Hours Act contains desirable provisions regulating child labor, but only in establishments doing an interstate business Such types of business may not employ children under 16 and in hazardous employments not under 18 years of age The Children's Bureau of the Department of Labor declares what occupations are of that nature.

The provisions of the Wage-Hour Act do not apply to children employed by their own parents in occupations other than manufacturing and mining. The Act does not remove the need for a Child Labor Amendment.

Approximately thirty-five national organizations support the Child Labor Amendment Among them are the American Farm Bureau Federation, American Federation of Labor, American Home Economics Association, American Legion, Federal Council of Churches of Christ in America, National Federation of Business and Professional Women's Clubs, National Congress of Parents and Teachers, National Education Association, National Women's Trade Union League, and the Railroad Brotherhoods.[6]

WORKMEN'S COMPENSATION LEGISLATION The term workmen's compensation refers to standardized payments made to workers for injuries or death brought about in the course of employment. It is generally admitted that the benefits provided in current compensation acts are relatively low and inadequate. Nevertheless it must be conceded that present provisions are far more satisfactory than those that could be obtained under employers' liability laws, which required the worker to bring suit and to show that he himself was not responsible, that no fellow worker was responsible, and that the injury was not the result of a normal risk in the occupation.

The relatively low benefits of present workmen's compensation are explained by the fact that the benefits are stipulated by law, rather than by the employer who must pay them, and on the ground that payments must be made without proof of the negligence of the employer and

[6] *The Federal Child Labor Amendment*, National Child Labor Committee, 1940.

irrespective of the fault of the worker. For example, compensation must be paid when the injury is caused by the worker's own negligence or that of a fellow worker, as well as when the employer is at fault Some of the characteristics of workmen's compensation legislation include provisions for temporary disability, permanent disability, permanent partial disability, and death.

The present plan reduces the need for law suits because workers' compensation laws usually include provisions that some public board or bureau be notified regarding each case and that standardized payments be made These are usually made promptly

Workmen's compensation at present does not apply in the United States in general to agricultural workers nor to domestic employees in homes The amounts paid for particular injuries, such as the loss of a foot or a hand, and particularly in case of death, vary considerably among the states. For example, payments for total disability may range from $3000 to approximately $20,000 Furthermore, modifications are made from time to time.

Recently Colorado amended its workmen's compensation laws to provide that employers shall furnish eyeglasses and artificial members where required Florida raised the maximum limitation on medical-hospital costs from $250, extensible by the commission to $500, to $1000. Illinois changed its law so that after July 1, 1941, compensation for fatal accidental injuries was increased by 10 per cent. Michigan raised the maximum amount for total disability from $10,000 to $12,500 Montana added provisions for persons totally disabled by silicosis. New York deleted exclusion of persons working on relief projects Texas requires workmen's compensation insurers to provide needed appliances, not to cost more than $200 [7]

The goal toward which progress is being made is to furnish prompt and adequate payments for medical or hospital services or benefits to support the worker's family while he is not able to work, and in case of death to provide aid to the widow and dependent children until they can become self-supporting

[7] See *Digest of State and Federal Labor Legislation*, United States Department of Labor, 1942

Although all states have workmen's compensation laws, and in spite of the fact that the civilized world endorses the effort, we are still far from the ideal whereby all persons gainfully employed receive adequate protection. The Social Security Act of 1935, to be discussed presently, makes provisions for old age assistance, dependent children, and child welfare service, and other benefits that tend to supplement inadequate workmen's compensation provisions.

The Chamber of Commerce of the United States feels that amendments, rulings, and the inclusion of occupational diseases "have gradually in many instances made benefits unduly high in relation to wages."[8]

COMPENSATION PRACTICE ILLUSTRATED. To illustrate how a compensation law works, the procedure in one state will be described [9]

If a Pennsylvania employe is injured in the course of his employment, he should notify his employer at once The employer shall notify the Department of Labor and Industry of the accident within 15 days If the injury disables the worker for more than 7 days, an agreement should be made with the employer for compensation. Two copies of such agreement shall be sent within 30 days to the Department of Labor and Industry for approval. If the agreement is approved the employe and the employer are notified The employe is sent a copy of the approved agreement and compensation shall be paid accordingly

If disapproved, compensation shall be paid according to first agreement until case is finally settled by revised agreement or decision of Workmen's Compensation Board If employe and employer fail to reach such an agreement, the employe may file a claim petition with the Board The Board will assign the case for hearing and decision by Workmen's Compensation referee. The referee's decision may be appealed by either party to the Board Further appeal may be made to a Court of Common Pleas and then to the Supreme Court whose decision is final unless appeal is allowed by the State Supreme Court

THE SOCIAL SECURITY ACT, AS AMENDED. The Social Security Act was passed by Congress, approved August 14, 1935, and subsequently amended It is an important piece of legislation that has many weaknesses and is conspicuous for its incompleteness; yet its passage, in the words of

[8] *Policies Advocated by the Chamber of Commerce of the United States*, Washington, D C, 1940, p 53

[9] *New Workmen's Compensation Law*, Pennsylvania

Paul H Douglas, represents "a worthy effort to protect the lives of wage earners and salaried employees "[10]

Douglas has pointed out that the passage of this legislation represents a sharp change in public opinion It has apparently swung from the older theory that each family could provide for its own protection from individual savings to the newer one that federal and state participation is now essential He believes that whether the act will stand the test of time will depend appreciably upon the Supreme Court and upon whether our present capitalistic form of government will continue in a "substantially healthy state." The major provisions of the act will be discussed in the order in which they occur.

1. *Grants to states for old age assistance.*[11] To encourage the states to furnish financial assistance to needy aged individuals in so far as they are able to do so, the act authorizes an appropriation for the year ending June 30, 1936, and annually thereafter of $49,750,000

A state plan for old-age assistance must be drawn up which is to incorporate certain provisions, including statewide application, financial participation on the part of the state, the designation of a single state administrative agency, provision for fair hearings, and the establishment and maintenance of personnel standards on a merit basis.

2. *Federal old age and survivors insurance benefits* According to Section 201 of the act, there is created on the books of the United States Treasury a trust fund known as the Federal Old-Age and Survivors Insurance and Trust Fund A board of trustees is also created to administer the fund. Insurance benefits are for all persons who have attained 65 years of age and are fully insured in compliance with Section 209 of the act.

Among the provisions are benefits for wives who have attained the age of 65 years, children, widows, and parents of individuals who died fully insured Lump-sum payments may be made upon the death of fully insured individuals

[10] Paul H. Douglas, *The Federal Security Act.*

[11] Social Security Board, *Compilation of the Social Security Laws, Including the Social Security Act Amendments of 1939 and Other Enactments of the 76th Congress, 1st Session*

who died leaving no surviving widow, child, or parent entitled to benefits.

3 *Grants to states for unemployment compensation administration.* The act authorized the sum of $4,000,000 for the fiscal years ending June 30, 1936, 1937, and 1938. It also authorized the sum of $49,000,000 for the fiscal year ending June 30, 1939, and for each year thereafter $80,000,000 is authorized to be used as provided in the act. These funds are "for the purpose of assisting the states in the administration of their unemployment compensation laws."

Payments are made solely through public employment offices or such agencies as the board approves. In the event that any state fails to carry out its responsibilities under the act, the board may withhold payments.

4. *Grants to states for aid to dependent children.* To help states furnish financial assistance to needy dependent children there is authorized for the fiscal year ending June 30, 1936, and for each year thereafter, an appropriation of $24,750,000. The state is required to work out a plan that meets the federal standards.

5. *Grants to states for maternal and child welfare.* For the purpose of enabling each state to extend and improve its provisions for promoting the health of mothers and children, especially in rural areas and those suffering from economic distress, appropriation of $5,820,000 is authorized for the year ending June 30, 1936, and a like amount for each fiscal year thereafter.

Among the specific provisions are authorizations for appropriations for crippled children ($1,000,000 a year); child welfare services ($1,510,000 a year); vocational rehabilitation ($3,500,000 a year). For all necessary expenses in administering the act $425,000 a year is paid to the Children's Bureau of the Federal Department of Labor.

6. *Public health work.* To assist states, counties, health districts, and other political subdivisions of states in establishing and maintaining adequate public health services, appropriation of $11,000,000 a year is authorized.

THE SOCIAL SECURITY BOARD.[12] This board of three members was established in accordance with the provisions of the Social Security Act The Social Security Board and its functions were transferred to the Federal Security Agency in 1939.

The board administers the Social Security Act approved August 14, 1935, as amended by the Reorganization Act of 1939, and plans adopted thereafter The responsibilities include the general determination of policies, specifically approval of state plans for old age assistance and aid to dependent children and to the blind. It also certifies to the Secretary of the Treasury grants-in-aid for approved plans.

Old age and survivor benefit and lump-sum payments to individuals are certified to the Secretary of the Treasury. The board approves state unemployment and compensation laws and certifies funds for the administration of unemployment compensation. It also makes studies and recommendations relating to the most effective methods of providing economic security through social insurance.

THE NATIONAL LABOR RELATIONS ACT (WAGNER ACT). The National Labor Relations Act, also known as the Wagner Act, was passed by act of Congress and approved in 1935 to continue certain labor policies incorporated in the National Recovery Act (N R.A ) of 1933. (The latter act was declared unconstitutional two years later by the Supreme Court because certain provisions exceeded the authority of Congress.)

Of prime importance to labor is the fact that the National Labor Relations Act guarantees workers the right to bargain collectively and protects union members from "discrimination" and "domination " It may be said by way of explanation that collective bargaining refers to the process by which wage earners as a group, acting through representatives of their own choosing, bargain with one or more employers concerning wages, hours, or other conditions of work or of relationship. The term collective bargaining designates both a device for working out satisfactory condi-

[12] *United States Government Manual,* Spring, 1942, p 328

tions of work and also an instrument of organization. From the view of labor, collective bargaining represents the core activity upon and around which labor unions are built.

The Chamber of Commerce of the United States looks upon the Wagner Act less favorably. The Chamber contends. "The practical operations of the Act have amply demonstrated that, in its present form, the Act is a serious deterrent to recovery." The Chamber holds that the act should be repealed [13]

VIEW OF THE N.A.M. ON COLLECTIVE BARGAINING AND THE WAGNER ACT. Referring to the Wagner Act, the National Association of Manufacturers says, ". . it is today the most important piece of labor legislation in effect in the United States "[14]

In the same booklet to which reference has just been made, the N A.M., in discussing labor's right to organize, raises the question, "Is industrial management opposed to collective bargaining?" and states:

> There can be no question of labor's right to bargain collectively and to use every legitimate means to advance the welfare of its members. Perhaps industrial management's efforts to have the Wagner Act amended have been misinterpreted, so that this right has appeared to be in question, but as far back as 1935, the National Association of Manufacturers said in its "Platform".
>
> "The economic foundation of industrial progress is productive efficiency. The attainment of this result requires the harmonious cooperation of labor, management, and investors. It demands that employer and employees be free to bargain collectively or individually in such forms as are mutually satisfactory to them without coercion from any source."
>
> That position has been reiterated, and extended, every year since that time.

Industrial management believes that the Wagner Act should be amended because it has been observed that whereas the Wagner Act was enacted to reduce strikes, there has actually been an increase since the law went into effect. "Nor," says the N.A.M., "has it been mainly about wages and hours " The Association declares that many of these strikes in no way involved working conditions; they were

[13] *Policies of the Chamber of Commerce of the United States*, 1940, p 10

[14] National Association of Manufacturers, *Employer-Employee Cooperation*, 1942, pp 22, 30

called "for the sole purpose of compelling workers to join unions." Bloody clashes, it is claimed, have occurred between rival unions for jurisdiction—disputes in which the employer has been a victim and in which his rights and those of the public have been disregarded

THE NATIONAL LABOR RELATIONS BOARD (NLRB). A board called the National Labor Relations Board is responsible for carrying out the provisions of the National Labor Relations Act. A staff of approximately 750 people employed by the board handled over 2000 representation cases in one year[15] The point at issue in such cases is, Who shall represent the employees? More than 9000 charges or petitions were received during the same year The board also had charge of conducting more than 2500 secret ballot elections during the 12 months The board not only settles controversies between employers and employees relative to bargaining agencies but also between rival employee groups.[16]

THE FAIR LABOR STANDARDS ACT (WAGE-HOUR LAW). The Fair Labor Standards Act, also known as the Wage-Hour Law, was passed by act of Congress, approved June 25, 1938. The law as enacted is far from perfect, but it marks an important advance toward which labor groups and others worked for many years. The act was passed "to prevent use of the channels of interstate commerce to spread and perpetuate labor conditions detrimental to the health, efficiency, and well-being of workers and to wipe out unfair methods of competition based on such labor conditions"[17]

The law contains three main provisions: a ceiling for hours, a floor for wages, and protection against "oppressive" child labor. The wage and hour provisions of the act apply to workers engaged in interstate commerce or in the production of goods for interstate commerce.

The 40-hour week (with overtime for a longer work

[15] The year 1941

[16] For information about the National War Labor Board, see Chapter 10

[17] *Employers' Digest of the Fair Labor Standards Act of 1938,* United States Department of Labor, Wage and Hour Division, Children's Bureau

week) went into effect October 24, 1940. For the preceding year the standard was 42 hours, and prior to October 24, 1939, it was 44 hours.

The wage orders issued as of October, 1941, covering 36 industries, provide wage rates ranging from 32½ cents to 40 cents an hour. Of these industries, one-half pay a minimum of 40 cents[18] The minimum wage for any industry coming within the provisions of the Wage-Hour Law may be raised by wage order up to 40 cents an hour before 1945.

The act does not require that workers be paid on an hourly basis. For example, piece rates may prevail, provided they meet the wage requirements of the act.

Overtime, with certain exceptions, must be paid in cash at the time the employee is customarily paid. Under certain conditions board, lodging, and other facilities are allowed in part-payment.

The following are exempt from the wage and hour provisions of the act:[19]

1. *Wages and hours.* The following are exempt from both the wage and hour provisions of the act

(*a*) Employees engaged in a bona fide executive, administrative, professional, or local retailing capacity, or in the capacity of outside salesman

(*b*) Employees of any retail or service establishment the greater part of whose selling or servicing is in intrastate commerce

(*c*) Seamen and agricultural workers, switchboard operators of small telephone exchanges, certain employees engaged in the seafood and fishing industry, employees of airlines, workers on street, suburban, or interurban electric railways, local trolleys, or local motorbus carriers,[20] or weekly or semiweekly newspapers with a circulation of less than 3000, the major part of which is in the county where it is printed and published

(*d*) Persons engaged within the area of production in handling, packing, storing, ginning, compressing, canning, pasteurizing, drying, or preparing in their raw or natural state agricultural commodities for market, or making dairy products

2 *Hours only* The following are exempt from only the hour provisions of the act.

[18] *The Wage and Hour Law—What It Is,* United States Department of Labor

[19] *Employers' Digest of the Fair Labor Standards Act of 1938,* United States Department of Labor

[20] This exemption does not always apply. For further information consult the Wage and Hour Division.

(*a*) Employees of railway or motor carriers which are regulated by the Interstate Commerce Commission[21]

(*b*) Employees of employers engaged in the first processing of milk into dairy products, in the ginning and compressing of cotton, in the processing of cottonseed, and in the processing of sugar-beets, sugar-beet molasses, sugarcane, or maple sap into sugar or sirup (but not the refining of sugar)

3 *Partial hour exemptions* The following are partially exempt from the maximum hour provisions of the act

(*a*) Employees in industries found by the administrator to be seasonal They may work up to 12 hours a day or 56 hours a week without payment of overtime rates for a period not exceeding a total of 14 work-weeks in any one year.

(*b*) Employees of employers engaged in the first processing, canning, or packing of fresh fruits and vegetables, in the first processing, within the area of production, of agricultural commodities during seasonal operations, or in handling, slaughtering, or dressing poultry or livestock. Such employees are exempt from the maximum hour provisions of the act for a total of not more than 14 work-weeks in any one year

(*c*) Employees working under an agreement, made as a result of collective bargaining by representatives of employees certified as bona fide by National Labor Relations Board The agreement must provide for an absolute maximum of 1000 hours' work in 26 weeks or 2000 hours' work in 52 weeks In the latter case a fixed annual wage or continuous employment for either 52 weeks or for 2000 hours must be guaranteed In either case work over 12 hours a day or 56 hours a week must be paid for at the rate of time and one-half

4 *Learners, apprentices, messengers, handicapped workers.* No learner, apprentice, messenger, or handicapped worker may be employed at less than the minimum wage except under special certificate issued by the Wage and Hour Division in accordance with regulations promulgated by the administrator.

The minimum wage and maximum hour provisions are administered through the Wage and Hour Division of the Department of Labor under the direction of an administrator. The chief of the Children's Bureau administers the provisions relating to child labor.

The administrator appoints an industry committee for each industry to make recommendations regarding minimum wage rates. He defines the industries to which wage orders apply, and issues regulations and orders with regard to exemptions, minimum wages of learners, apprentices, messengers, and handicapped workers. He also determines

[21] *Ibid.*

whether or not industries are seasonal in nature and looks into other employment practices covered by the act [22]

Wage-Hour Law Revision.[23] The view is expressed in one of our leading papers that the federal Wage-Hour Law obviously needs revision. The writer holds that "minimum wage and maximum hour laws are both desirable in principle" but that "the Federal act, however, is badly conceived and inflexible, and a very serious obstacle to full production and economic stability in the present crisis." He states that when 50 per cent is added for overtime, the cost is passed on to the taxpayer and the government gets less for its money. Attention is called to a conclusion reached by the research staff of the Twentieth Century Fund to the effect that the work-week resulting in maximum output per worker lies somewhere between 48 and 60 hours a week in most occupations.

The article also mentions a matter which, in the judgment of its writer, "has not begun to receive the consideration it deserves . . . the now vital question of training." Attention is called to the fact that the administrator of the Wage-Hour Act is authorized to issue for learners and apprentices certificates of exceptions from wage rates established for industries, but the writer asks whether "as a practical matter, this has been done, or under the present law is likely to be done, to the extent necessary to encourage an adequate training program for apprentices"

The Wage-Hour Law as Seen by the Chamber of Commerce The Department of Manufacture Committee of the Chamber of Commerce of the United States finds, in substance:[24]

That by a series of interpretations made by the administrator of the act, the scope of the employees coming within the provisions of the act has been extended, the committee believes, beyond the point contemplated by Congress when the act was passed

That although many applications for exemptions of learners and ap-

[22] *The Wage and Hour Law Fair Labor Standards Act of 1938*, American Federation of Labor, 1938

[23] *New York Times*, April 5, 1941

[24] *Federal Wage-Hour Law*, Report of Department of Manufacture Committee, Chamber of Commerce of the United States, January 26, 1940.

prentices were received, few certificates of approval were granted during the period noted The practical difficulties encountered operated to discourage the filing of applications, particularly for learners' permits.

The Committee was of the opinion that neither the original minimum rate of 25 cents nor the increase to 30 cents caused widespread difficulties although it resulted in the discharge of handicapped workers and some of the least efficient employees The real problem for employers is that of making adjustments in the higher rates so that proper wage differentials may be maintained

In the opinion of the Committee the major criticism directed against the Wage-Hour Law is traceable to rigidities in operation resulting from the application of the overtime provisions Continuous process industries, such as the paper industry, and seasonal industries in which workers "were willing, in fact anxious" to work longer periods at the regular rate of pay registered complaints.

In summary, the Committee of the Chamber of Commerce "holds it as self-evident that the law has followed a course far removed from that originally contemplated by its sponsors" and that the solution of the problems created necessitates repeal of the act itself.

THE ACT AS SEEN BY THE AMERICAN FEDERATION OF LABOR. In the words of William Green, president of the American Federation of Labor, the act "embodies the fundamental principles for which the American Federation of Labor fought with courage and tenacity. . . . It is important to emphasize that the Wage and Hour Law as finally enacted is far from perfect In a number of respects the law falls short of the standards set up by the Federation. The undesirable provisions of the Act must and can be corrected in the future "[25]

THE WALSH-HEALEY ACT. This federal act, approved June 30, 1936, is also known as the Government Contracts Act It applies to employees and employers where the latter hold contracts in excess of $10,000 for goods and supplies manufactured for the Government of the United

[25] *The Wage and Hour Law: Fair Labor Standards Act of 1938*, American Federation of Labor, 1938.

States. In general, the standards concerning wages and hours and related matters resemble those of the Fair Labor Standards Act of 1938. But in some instances those of the Walsh-Healey Act are higher, and in such cases they prevail.

The federal government is the largest single buyer of many products. It is also the largest single employer. In some instances the government acts directly as employer; in others, contracts are let through private contractors. Under the act, minimum wages are determined by the Secretary of Labor. No male under 16 years of age nor female under 18 years may be employed in industries where the Walsh-Healey Act applies.

Work done for the government must be performed under safe, sanitary, and healthful conditions Factory inspection laws must be observed. "Kick-backs" are prohibited where workers are paid from federal funds [26] The United States Department of Labor enforces the Davis-Bacon Act determining wage scales on construction jobs, the Walsh-Healey Act, and anti-kick-back laws Exemptions from the Walsh-Healey Act may be granted under certain conditions [27]

FACTORY INSPECTION In the United States state factory inspection services began in Massachusetts in 1879. The chief purpose of factory inspection as a state service is the elimination of unsafe, unsanitary, and unhealthful conditions of employment. Other objectives are concerned with preventing child labor and checking on the legality of hours of work Factory inspectors are often glad to cooperate with school authorities, whether or not the law requires it, in checking school shops and laboratories to make sure that they meet approved standards of safety.

It is common practice to divide states into regions and to place a factory inspector in charge of each. In the main these inspectors are underpaid. Andrews reports that the minimum salaries are seldom over $2300 a year and the maximum rarely more than $3000 He believes that their

[26] The term "kick-back" is used for the pernicious practice of forcing workers to return a part of their wages in order to hold their jobs

[27] *The Walsh-Healey Act*, also *The Worker, His Job and His Government*, United States Office of Education, Bulletin No 220, 1942.

salaries should be higher, that competitive examinations should be used for their selection, and that protection against removal without good cause should be given them.[28] He reports that in 1938 sixteen of the forty-eight states had adopted comprehensive civil service regulations designed to eliminate personal favoritism and political preference. A chief factory inspector is often responsible for maintaining high standards in the service Some states require daily reports; others, weekly reports from their inspectors.

In some states factory inspectors invite employers to accompany them while performing their duty The inspectors may be there to see whether or not the place of employment meets the requirements of law or to investigate a specific complaint that has been received.

Inspectors check the evidences of legal age of youth employed Time and payroll records may be checked for conformity to state and federal minimum wage legislation.

When a violation of a law is discovered the matter is pointed out to the employer or his representative. The inspector indicates what should be done about it and records the violation An order of compliance is issued, and a compliance slip, which is to be returned to the inspection service when the correction has been made, is often sent.

MINE SAFETY INSPECTION. The number of persons injured or killed in mines in the United States is high. According to the 1940 federal census, approximately 913,000 persons were gainfully employed in mining in our country. Of these, 527,025 were coal miners.

Mine safety engineers agree that mines must be inspected every day they are operated. The laws of some states make such a requirement. The primary responsibility for mine inspection, Andrews holds, should be with the operators, whereas the state mine inspection service, like the factory inspection service, should be largely concerned with the enforcement of inspection service.[29]

OCCUPATIONAL DISEASE HAZARDS The term occupational disease is used to describe an illness or disorder caused

[28] John B. Andrews, *Labor Laws in Action,* Chapter V

[29] *Ibid*, Chapter VI.

by the working conditions in an occupation. For example, employees may suffer from poisoning caused by lead, mercury, arsenic, or manganese It may also result from phosphorus, methanol, carbon bisulphide, or hydrocarbon distillates Benzol, radium, chromic acid, and other substances make an extensive list of possible hazards.

Infection may occur from tar, pitch, bitumen, and mineral oil. Paraffin, cutting compounds, lubricants, dust, liquids, fumes, gases, vapor, and anthrax are other sources of injury

Caisson disease is sometimes contracted by workers where compressed air is used, as in caissons and in tunneling under rivers. Lead poisoning may occur in more than a half-hundred occupations, including manufacturing and smelting lead, making storage batteries, making or mixing paints, painting, and printing, where workers handle lead or type metal containing lead.

Sand blasting, molding, mining, quarrying, polishing, grinding, and other dust-producing operations may cause injuries.

Silica dust is dangerous Perhaps few people die from silicosis only, but it puts the lungs into a condition that makes the person an easy victim to lung diseases. The effects of silica dust may not be noticeable for several years, and hence proper protection may not be taken against it. It is claimed that few miners show effects until 15 years of exposure, whereas workers in granite and other stones are affected much more quickly. Exhaust systems, wet grinding, and protective devices such as masks should be used where needed.[30]

Anthraco-silicosis also results from breathing air containing silica dust. In the final stages tuberculosis or other diseases of the lungs may set in.

MECHANICS' LIEN LAWS. The purpose of mechanics' lien legislation is to give the worker the wages that are due him. All the states have mechanics' lien laws They apply to labor performed on public as well as private works, to work done for railroads, on land, in mines, on the construction of vessels, buildings, structures, and other types of work.

[30] *Occupational Disease Compensation Law*, Pennsylvania Department of Labor and Industry

Generally liens take priority over other payments. For example, the wage earner is often given priority over contractors and subcontractors.

IMPORTANCE OF LABOR RELATIONS Some of the implications of the deep significance of labor problems and relationships may be judged from the claim that labor groups gave Russia Bolshevism, that violent reactions against labor groups gave birth to Fascism in Italy, that it was middle-class groups opposed to socialist and communist labor groups in Germany that helped Hitler into power, and that it was the strife between labor and anti-labor extremists that demoralized France to the point where she fell a quick victim to Nazi attack.[31]

A pertinent question that thinking Americans must face is, What kinds of employer associations and of labor unions shall we encourage in order that our American ways of life may be safeguarded, improved, and perpetuated?

INDUSTRIAL DISPUTES When a group of organized workmen stop work in order to secure their demands from an employer, the process is called a strike In recent years there has been evident a trend to avoid strikes and lockouts —that is, exclusion of workers from the place of employment by the employer—and to substitute mediation and conciliation as a mode of settling differences.

It is claimed by Carskadon that strikes occur much more frequently in newly organized industries than in older ones in which workers have had longer experience in collective bargaining.[32] He states that nearly all the major strikes between 1933, when the National Recovery Act first legalized collective bargaining, and 1941 have been in the textile, iron and steel, automobile, rubber, motor transport, and longshoreman and marine industries In these six groups of industries nearly 4,200,000 man-days were lost through strikes in 1939, whereas in the strongly unionized railroad, clothing, hosiery, printing, and building trades groups, in

[31] William Hard, "Should Labor Have Glass Pockets?" *The Reader's Digest*, January, 1942

[32] T R Carskadon, *Labor in the Defense Crisis*, Public Affairs Pamphlet No. 58, 1941.

which approximately as many workers were employed, the man-days lost were only 1,200,000, or less than 29 per cent as many

In labor conflicts picketing is sometimes practiced. Picketing consists of placing persons near the place of business or employment to dissuade strike-breakers from replacing the striking employees or to discourage prospective customers from dealing with the employers, as when a store is picketed

The word boycott refers to an attempt to punish or to coerce by getting others to join in an action in the expectation of bringing about the result desired. The action may be, for example, to stop buying a product or a group of products, as when one nation boycotts goods from another.

In industrial disputes a black list, of which there are several forms, may be used. Such a list may be kept by an employer of dismissed persons who are not to be rehired A list of nonunion workers or of employers who are in disfavor may be kept by a union Another form of black list is the type kept by manufacturers or dealers of other manufacturers or dealers who refuse to join them in a business enterprise. Thus a service station selling gasoline or oil at a price lower than the one at which other dealers wish him to sell may be placed on a black list

A "yellow-dog" contract is a contract having as one of its provisions an agreement that the employee will not join a union while employed.

Injunctions are issued by courts of equity They usually forbid a certain specified act but may also require that a particular thing be done Injunctions may be either temporary or final. Temporary injunctions are issued while a case is under consideration, whereas final injunctions are granted after a suit has been decided

MEDIATION, CONCILIATION, AND ARBITRATION. It is common to use the words mediation and conciliation interchangeably In the stricter sense a mediator is a go-between who refrains from active participation in the controversy although he renders messenger service in the hope of aiding in the settlement of the dispute

Conciliation is more active in that the conciliator is ex-

pected to use his best judgment in the effort to settle the dispute to the satisfaction of the contestants.

In arbitration the case in dispute is referred to a qualified, nonpartisan outsider or to an arbitration board, which is expected to render an award that will be honored by the parties in dispute.

In voluntary arbitration the contestants agree to appeal to the arbitrator with a view toward achieving a peaceful settlement In compulsory arbitration the parties in dispute may be forced to arbitrate as directed by a state, federal, or wartime agency that has authority in the case

In actual practice, mediation, conciliation, and arbitration are frequently used as successive steps in bringing about agreement by peaceful means

Carskadon believes in mediation, pointing out that "mediation works . . out of every 10 disputes referred to state and national mediation boards, 9 are adjusted."[33] He argues in favor of voluntary mediation and cites the findings of the Twentieth Century Fund's Committee on Labor as proof that voluntary mediation is effective and that compulsory mediation does not work

The latter point of view appears to be shared by the Department of Manufacture Committee of the Chamber of Commerce of the United States The Committe says:

> There is every evidence of an increasing determination on the part of both management and workers to develop voluntary methods for the adjustment of labor difficulties and thus prevent production stoppage According to recent estimate, such voluntary methods will probably prove effective in 99% of the defense industries . . The Chamber further believes that public interest will be best served by voluntary cooperation [34]

GOOD LABOR RELATIONS In this chapter an attempt has been made to present contrasting views without bias It is indeed encouraging to see how leaders of industry, business, and agriculture are turning more and more to peaceful means of settling differences

Fair labor laws and good labor relations are the breath of life. Justice cannot prevail without wisdom, and wisdom

[33] T. R Carskadon, *Labor in the Defense Crisis*, Public Affairs Pamphlet No 58, 1941

[34] *Adjustment of Labor Disputes in Defense Industries*, January 24, 1941, pp. 6-7

grows out of reflective thinking—in this case thinking geared to the challenging task of improving working conditions and employer-employee relationships for the good of labor, employers, the public, and government.

## *FOR DISCUSSION*

1 Sketch the development of the United States Department of Labor and mention its major bureaus, divisions, and services

2 Report at length upon one or more of the bureaus, divisions, or services of the Department of Labor.

3 Describe in considerable detail the organization and functions of your state department of labor

4 Trace the child labor movement in the United States, giving special attention to present-day objectives, accomplishments, and problems

5 Describe the objectives of workmen's compensation legislation and show how it works

6 Mention as many kinds of provisions as you can of the Social Security Act and its amendments

7 Explain the functions and duties of the Social Security Board.

8 Discuss in considerable detail the purposes and the operation of the National Labor Relations Act

9 Explain what is meant by collective bargaining and indicate how it operates.

10 Compare the views of labor and of employers in respect to the National Labor Relations Act

11 Give an approximate idea of the nature and scope of the service rendered by the National Labor Relations Board

12. State the main provisions of the Fair Labor Standards Act of 1938

13 Mention industries that come under the provisions of the Wage-Hour Law and also a number that do not

14. Give contrasting views of the Wage-Hour Law

15. What appear to be some of the revisions needed in the Wage-Hour Law?

16. Explain the provisions of the Walsh-Healey Act of 1936

17 Describe in considerable detail how factory inspection is carried on in your state

18 Report upon mine safety inspection, its methods and results.

19. Describe the causes, symptoms, and effects of several occupational diseases

20. Is the term industrial dispute preferable to strike or lockout? Justify your answer.

21 Explain the procedure of picketing

22. Show in detail what is involved in mediation, conciliation, and arbitration.

## *FOR FURTHER READING*

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# CHAPTER 13

## *Trade and Job Analysis for Purposes of Vocational Education*

In this chapter trade and job analysis, especially those forms of analysis that serve as foundations for sound objectives, suitable subject matter, and appropriate techniques in vocational education, will be considered.

Trade and job analysis for purposes of vocational instruction is by no means a new procedure. Many individuals have contributed to the development of the basic concepts and to refinements in the processes involved.

In a movement as old and as extensive as the one under consideration it is possible within the limits of one chapter to mention but a few of the persons who have contributed substantially to the area of learning concerned and to call attention to but a limited number of the job analyses that have been made.

Job analyses for educational purposes are made to serve such specific objectives as:

- To determine scientifically what needs to be taught
- To avoid teaching what is not needed.
- To reveal relative emphasis required
- To assist in organizing functional instructional material.
- To serve as a basis for valid and reliable testing.
- To disclose a suitable sequence for teaching
- To show standards of achievement required
- To bring out suitable means and methods of teaching.
- To assist in developing suitable time limits

TRADE AND JOB ANALYSIS DEFINED. In vocational education the terms trade analysis and job analysis refer to the process or the result of making an inventory or analysis of a trade or of a job for instructional purposes. A trade analysis made for training purposes is a classified list or inventory of the learning units of the trade It has been compared to a

laundry list, in which items of similar kind are arranged under group headings.

Since the word trade as used in the field of trade and industrial education refers to skilled occupations requiring, as a rule, a learning period of four years, and since highly specialized or unit-skill jobs often require a much shorter period of preparation, the term job is not synonymous with trade. Consequently, in strict usage trade analysis and job analysis are not interchangeable terms

MANY KINDS OF JOB ANALYSES. Even a casual examination of the card index in a reasonably large library or the pages of the *Education Index* or the *Industrial Arts Index* will reveal the fact that a large variety of analyses have been published They range all the way from analyses of metals to an analysis of snowflakes, they embrace subjects as diverse as animal instincts and philosophy and include social, economic, industrial, military, political, and educational areas of investigation.

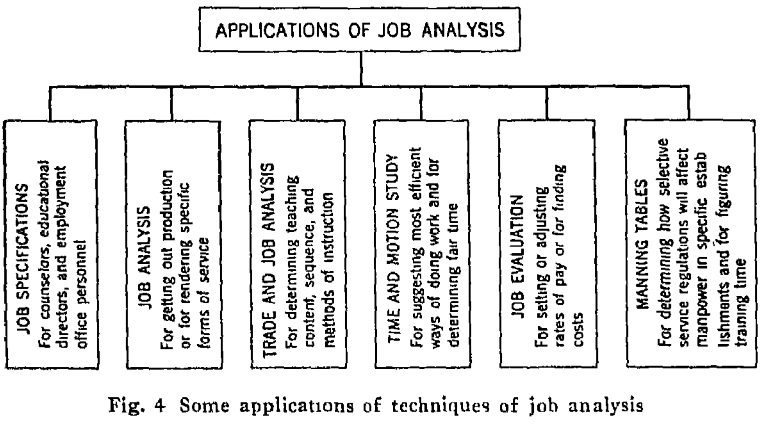



Fig. 4 Some applications of techniques of job analysis

The term job analysis is obviously more restricted in scope but is nevertheless used in a number of ways. For example·

1. The United States Employment Service has published many job descriptions and job specifications which are very helpful to counselors, directors of vocational education,

educational directors in industry, employment office personnel, and others.[1]

Job descriptions are used to advantage in the *Dictionary of Occupations* developed by the United States Employment Service. Other sources of job descriptions are studies similar in nature to *Occupational Briefs*, Series No 2, Revised Edition, Los Angeles, California, Board of Education. The National Vocational Guidance Association, the United States Office of Education, state departments of education, local school systems, private organizations of many kinds, and regional, state, and national associations of various sorts have also developed job descriptions that range all the way from very brief notations to extensive surveys of specific occupations.[2]

2. Job analyses are made by production engineers and others to take the guesswork out of jobs to be done. Each operation is analyzed, and specific instructions are issued Operation sheets and job sheets may be developed, but with production as the objective and the reduction of cost as a factor.

Service industries such as transportation and communication companies may also undertake job analyses in order to render better service to the customer. Flow charts may be developed as a part of such analyses.

3 Time and motion studies have become basic procedures for a variety of analyses F W. Taylor pioneered, primarily in time studies, though he recognized the possibilities of motion studies in the 1880's. It remained for Frank Gilbreth, consulting engineer on management, and his wife, Lillian, a psychologist, to make one of the first substantial contributions to the science of time and motion studies

Motion studies may be grouped into two types: (*a*) observing workers, making notations, and using them as a basis of analysis, (*b*) micro motion study technique. Time

[1] See, for example, United States Employment Service publications, *Job Descriptions for Domestic and Personal Service Occupations*, 1941, and similar job descriptions covering hotels and restaurants, foundries, cleaning, dyeing and pressing, construction, knitting, retail trade, etc

[2] See United States Office of Education, *Occupational Information and Guidance Bibliography*, Bulletin No 212, 1940, also *Occupational Information and Guidance*, Bulletin No 204, 1939

and motion study has been widely used as an administrative device. It has been used extensively as a means of determining. (1) the best way to do something; and (2) a fair time in which it can be done

It is evident that time and motion studies may be used in varying degree to determine rates of pay, to reveal the best way of teaching a learner how to perform given operations, and for other purposes.

4 Job evaluations are carried on by specialists who have been trained in the techniques of analyzing jobs in order to arrive at equitable rates of pay for workers or to determine fair sales prices for the product Job rates may need to be modified as new materials, tools, processes, or standards are introduced.

5. Trade and job analysis is of special interest to educators when the analysis is designed to bring out one or more of such features as have already been mentioned and more particularly (*a*) teaching content—that is, what should be taught; (*b*) teaching sequence—the order in which the units of learning can be presented to best advantage; and (*c*) the means and methods that are likely to be best suited for teaching purposes It is this particular form of trade or job analysis which serves as a foundation for effective, functional vocational education

6. Manning Tables A form of job analysis that grew out of the requirements for manpower used the Manning Tables. The plan was developed jointly by the War Manpower Commission and the Selective Service System, cooperating with such companies as the Carnegie-Illinois Steel Company working with the American Iron and Steel Institute, the General Electric Company, Eastman Kodak, Bausch and Lomb, Briggs Manufacturing Company, American Locomotive Works, and the Square D. Company.

The objective of the Manning Tables is to provide a complete inventory of personnel with essential jobs listed in the order of their importance. The analysis serves as a current inventory as well as a basis for forecasting future labor needs Opportunities for training, up-grading, and replacement are revealed, and the time required to train new workers is worked out. The tables help to reveal how

Selective Service is likely to affect the workers employed in establishments.[3]

THE ALLEN METHOD OF JOB ANALYSIS.[4] In recognition of the leading part that Dr. Charles R Allen had in initiating and developing job analysis, the method used and advocated by him is often called the Allen method of job analysis "Analyzing the trade," said he, "simply means listing out all of the things that the learner must be taught . . ." He recognized the following steps:

1 The instructor must determine what he is to teach He must list all the jobs, special terms, and related knowledge needed to perform these jobs.
2. The second step consists in classifying the teaching content. Allen compared this step to labeling a set of pigeon holes and sorting articles according to the labels To illustrate, he showed that certain kinds of production jobs might be classified as forming, shaping, and assembling jobs Technical jobs and miscellaneous jobs might be among others

   Trade drawing, trade problems, trade mathematics, and trade terms were also recognized Safety precautions, occupational dangers, prevention of loss, and care of tools and equipment were thought of as essential parts of trade analysis
3 The third step, called blocking, is seldom needed for teaching semiskilled occupations but is recommended for skilled trades The term block means a graph or unit of jobs involving the same sort of learning. A block is a unit of a trade—sometimes called a special brand of the trade Blocks may be organized on the basis of materials used, operations performed, or construction involved
4. After the list of jobs in each block has been determined, the blocks are arranged in the order of learning difficulties involved or in some other order which appears to be best suited to the instructional conditions For example, related blocks may be kept together, unrelated ones fitted in elsewhere The job requirements may determine the order of instruction—for example, in aircraft engine overhaul and repair

SUGGESTIONS CONCERNING FORMS FOR ANALYSIS [5] If a job analysis is to be made in the general manner advocated by Allen, one of several forms for recording the desired

[3] *Factory Management and Maintenance,* McGraw-Hill Book Company, Inc, November, 1942. A review is found in *Business Week,* McGraw-Hill Book Company, Inc, November 7, 1942

[4] Charles R Allen, *The Instructor, the Man, and the Job,* J B Lippincott Co, Philadelphia, 1929

[5] Claude L Kulp, "A Plan for Job Analysis," *Industrial Education Magazine,* Vol XXV, No 1, July, 1923.

data may be used. For example, a series of cards, perhaps of different colors, may be used Kulp has suggested that for ease of filing, three cards, each used on both sides, are advisable.

Card A-1 is for general information about the job—for example, the physical, mental, and educational requirements, wages, and opportunities for promotion. Some individuals would find this information extensive enough to eliminate them.

On Card A-2 (the reverse side of card A-1) is recorded an analysis of the job in terms of the manipulative skills required.

Card B-1 is for auxiliary information necessary for proper performance of the job. Data are secured from experienced workers, preferably by a trained analyst.

On Card B-2 (the reverse side of B-1) is given technical information or knowledge required

Card C-1 may be used for notes showing possible applications and correlations to be brought out by the instructor

Robert H Rodgers and Oakley Furney recommend a simple set of cards much like those just described [6] Their Card No 1 is entitled "General Information Concerning Job of______." Card No. 2 is headed "Job Analysis______ Name of Job______" and provides columns for listing the operations and the steps in each operation in the order of learning. Card No 3 is entitled "Auxiliary Information for Job of______ " It has columns for trade terms, materials, tools, and hygiene-safety. Card No. 4 is labeled "Technical Information Necessary for Performing Job of______"; "Teaching Points" and then in parallel columns Mathematics, Science, Drawing, and Other Information. Card No. 5, bearing the caption, "Possible Classroom Correlation for Job of______" carries columns labeled respectively Related Math, Related English, Related Hygiene (Accident Prevention), Related Drawing, Required Subjects (United States History, Economics, Industrial History, and Civics).

[6] Robert H Rodgers and Oakley Furney, *Industrial Subjects in a Part-Time or Continuation School,* Fred A Williams, publisher, Albany, New York, 1922.

COOPERATION OF ALLEN AND CUSHMAN. An epoch-making pioneer study involving an analysis of the machinist's trade was made under the direction of Dr J C. Wright, Assistant United States Commissioner for Vocational Education, by Charles R Allen and Commander Frank Cushman [7] In this analysis a form similar to the following one was used to list the manipulative operations.

ANALYSIS OF MACHINIST'S TRADE

(Progression factors Complexity, accuracy, and number of operations)
DRILLING

| Checking Level | Type Job Specifications | Objective | Auxiliary Information | Trade Mathematics | Trade Drawing | Trade Science |
|---|---|---|---|---|---|---|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |

Other forms for making job analyses, such as Clyde A. Bowman's graphical analysis and Merritt W Haynes' use of the blackboard, will be discussed presently First, however, the technique and forms developed by Allen, Cushman, and others, as used currently by the professional staff of the United States Office of Education, should be examined more fully.

OTHER ANALYSES BY UNITED STATES OFFICE OF EDUCATION. Over a period of years numerous members of the Vocational Division of the United States Office of Education have made, or have collaborated with others in making, many thorough job analyses Illustrative of this group are

[7] Federal Board for Vocational Education, Bulletin 52, *Theory and Practice. Outlines of Instruction in Related Subjects for the Machinist's Trade*, Government Printing Office, Washington, D C, December, 1919

analyses to be found in Vocational Education Bulletin No. 142, *Vocational Training for Aviation Mechanics*, Vocational Education Bulletin No. 137, *Granite Cutting;* and Vocational Division Bulletin No. 208, *Bricklaying*.

A typical classification of headings and subdivisions used in making such analyses is this:[8]

*Jobs*
- Job specifications and type jobs.
  - Type job specifications.
  - Type jobs
    - (a)
    - (b)
    - (c)
- Sketch
- Objective.

*Trade technical knowledge.*
- Drawing
- Science
- Mathematics

*Auxiliary information*
- Recognition of stock, trade terms
- Care of tools; safety, cautions

*Training progression.*
- Repetitive training
- Instruction required

JOB ANALYSES ISSUED BY UNIVERSITY OF CALIFORNIA. The Division of Vocational Education of the University of California, in cooperation with the State Department of Vocational Education, State Board of Education, issued a number of job analyses beginning as far back as 1920 They include (1) *An Analysis of Department Store Occupations for Juniors*, (2) *An Analysis of the Work of Juniors in Banks;* (3) *Job Analysis Applied to the Teaching of Vocational Agriculture*, (4) *The Work of Juniors in Retail Grocery Stores*, and (5) *Analysis of the House Carpenter's Trade*.

The latter was a comprehensive analysis by Leslie G Stier, at that time principal of the Frank Wiggins Trade School,

[8] See United States Office of Education, *Granite Cutting*, Vocational Division Bulletin No 137, pp 27-32, for topics and explanations

Los Angeles He divided the trade in the following manner.

Unit 1. Roughing-in
Unit 2 Exterior Covering and Finishing
Unit 3. Roof Framing
Unit 4 Interior Finish
Unit 5. Stair Building
Unit 6 Foundation
Unit 7 Saw Filing
Unit 8. Estimating

The following record form, printed on sheets 14 × 17 inches, is representative of those used by Stier:

| Checking Level | Type Job Specifications | Objective | Trade Mathematics | Trade Drawing | Trade Science | Auxiliary Information |
|---|---|---|---|---|---|---|
| No 1 | | | | | | Trade Terms<br>Care and Use of Tools<br>Safety Precautions<br>Knowledge of Stocks |
| No 2 | | | | | | |

Analysis of the Plumber's Trade [9] Bertram Welbaum, in collaboration with George K. Wells, made an analysis of the plumber's trade The analysis was printed on a sheet 17 × 22 inches, folded to 5½ × 8½ inches. The captions used were:

| Jobs | Operations | Skills | Knowledge | Related Subjects | | |
|---|---|---|---|---|---|---|
| | | | | Science | Mathematics | Drawing |
| | | | | | | |

The Selvidge Plan of Trade Analysis In the year 1923 the late beloved Robert W Selvidge, Dean and leader in industrial education at the University of Missouri, pub-

[9] *Analysis of the Plumber's Trade*, Division of Vocational Education, State Department of Public Instruction, Indianapolis, Indiana, 1929

lished a book entitled *How to Teach a Trade*. In it he set forth his views on how to teach a trade, based on his own experience and that of associates in the United States Army during World War I

The plan of trade analysis developed and advocated by Selvidge is relatively simple. The basic steps are these:[10]

1. Make a list of the things a man must know and be able to do in his trade
2. After the operations of the trade have been listed, give specific and concise directions concerning how to perform them
3. When information on certain topics is necessary, prepare a list of information topics. Under each of the topical heads, record without discussion the important facts pertinent to it. Follow with appropriate questions
4. If there are problems in related mathematics that need to be solved or in related science that must be mastered, inventory them under pertinent headings

ADVANTAGES OF THE SELVIDGE PLAN. Modest Dean Selvidge was the first to point out that "the plan does not provide a royal road to learning" Among the chief advantages that he saw in it are (1) the procedure calls for stating the problem definitely, (2) it recognizes the difference between the doing aspects and related knowledge; (3) it provides in usable form information and direction to learners; and (4) the technique of trade analysis may be used for many jobs in many trades

Other advantages, he believed, are (1) the plan requires the learner to plan his work before he undertakes it; (2) it is of educational value to those who use it; (3) it helps to develop habits of analyzing and planning; (4) it reveals to the learner his sources of strength and weakness.

The plan also results in arranging instructional material in forms that save the instructor's time. The advantages of individual as well as of group instruction are retained. The plan permits learners to enter and leave the class at any time without disrupting the class organization.

DISTINCTIONS BETWEEN TEACHING A MACHINE OPERATOR AND A SKILLED MECHANIC In considering job analysis by the Selvidge or by other methods, it should be recognized

[10] Robert W Selvidge, *How to Teach a Trade*, The Manual Arts Press, 1923

that there are distinct differences between the requirements of training a person for a unit skill—for example, the operation of a stamping machine—and training him for the coveted title of skilled mechanic A machine operator may be trained in a few hours, days, or weeks, a skilled mechanic must usually serve a learning period of 4 to 6 years. This distinction calls for variation in the procedure of job analysis.

It is quite satisfactory to classify rather highly specialized jobs into operations. For that reason such a breakdown is commonly used in vocational training for unit-skill workers

It is also known by many persons that under modern conditions skilled workers in factories, on construction jobs, and in many kinds of service and maintenance work are not called upon to use the full range of their knowledge and skill; specialization has made this inadvisable. However, many skilled mechanics are still needed Their work varies greatly, and it would scarcely be feasible in their case to develop job analyses based on jobs as units On the other hand, such skilled trades have a series of unit operations which are performed over and over with relatively slight modification To illustrate, a carpenter may trim a door or window in a half-dozen ways, each of which calls for variations, but relatively minor ones So putting on trim may be used as a unit operation.

Selvidge's Views Regarding Instruction Sheets Through classroom instruction, published articles, and especially through his masterly book entitled *Individual Instruction Sheets: How to Write and How to Use Them*, Dr. Robert W. Selvidge gave the world suggestions regarding the preparation of instruction sheets that bid fair to make a lasting contribution to practical arts and vocational education. He maintained that "one of the most common errors teachers make when attempting to prepare written instruction sheets is to give only an outline of the steps to be taken in performing the task . . . The outline tells what is to be done but it does not tell *how* to do it "[11]

"The jobs are but combinations of manipulative processes

[11] Robert W Selvidge, "The Job Sheet," *Industrial Education Magazine*, July, 1923.

with a background of necessary information," he wrote. In order to avoid a great deal of useless repetitive work in preparing job sheets, he advocated writing and distinguishing between the following types of instruction sheets: (1) operation sheets; (2) information sheets; (3) assignment sheets; and (4) job sheets[12] Each of these will now be dealt with more fully.

1 *Job sheet* An instruction sheet that explains how a complete job, usually involving several operations, is done is called a job sheet Job sheets are most commonly used by schools for educational purposes in connection with broad training, but may also be used to advantage for highly specialized jobs. Job sheets are especially useful when the trainee has already mastered the various operations involved or when operation sheets are used to supplement the job sheet In developing job sheets, successive sheets should call for more and more original thinking on the part of the learner. Full directions are appropriate for beginners, more advanced learners should be encouraged to develop resourcefulness. This may be stimulated by modifying the job sheets in such a manner that students gradually develop the qualities wanted.

2. *Operation sheet* An instruction sheet that explains how an operation is performed is called an operation sheet The term operation refers to points of instruction or elements of jobs. An operation sheet may deal with how to use a specific tool or how to perform a specific unit or part of a job.

Many operations occur in hundreds of jobs. It would be wasteful of time and material to repeat instructions about them in successive job sheets. By developing operation sheets, several purposes are served· time and money are saved because duplication is prevented; resourcefulness is encouraged by applying the directions given on operation sheets to a variety of jobs, greater flexibility than would otherwise be possible is attained through the use of operation sheets used in combination with job sheets and other instruction sheets.

[12] Robert W Selvidge, *Individual Instruction Sheets How to Write and How to Use Them,* The Manual Arts Press, 1926

3. *Information sheet.* An instruction sheet that gives information about machines, parts, tools, and materials or that gives background or explanatory information or knowledge is commonly called an information sheet For example, information sheets deal with such topics as characteristics of plastics, how to use a steel square, lubrication, safety practices, and how to use a slide rule.

4 *Assignment sheet* An instruction sheet that tells learners what reading, writing, or study they are to do or what observations they are to make is called an assignment sheet The term is also commonly used by teachers of related mathematics and related science in connection with sheets by means of which problems, exercises, or experiments are assigned.

Assignment sheets often contain questions to be answered, problems to be solved, or cases to be diagnosed or solved. Selected references and suggestions for further study may be included Sometimes objective test items, such as multiple-choice and procedure tests, are added.

REASONS FOR USING INSTRUCTION SHEETS. An instruction sheet is a teaching device It does not and is not intended to replace the teacher. Neither is it to be regarded as a crutch for teachers In light of the extended use that has been made of instruction sheets, it is almost commonplace to say that instruction sheets of the right sort are of much value as teaching devices

Under many conditions instruction sheets are absolutely necessary. This is particularly true when trainees enter and leave at irregular times and when they come with greatly differing backgrounds of experience, as they do in classes organized in industries working on war contracts, in depots, arsenals, cantonments, and in state, county, city, and district vocational schools and classes for adults

Written instruction sheets are usually prepared with care. They are subject to examination and criticism and are modified as needed. This makes them relatively reliable and effective teaching aids.

THE ALLEN AND SELVIDGE METHODS COMPARED. A constructive comparison and criticism of the Allen and

Selvidge methods of teaching a trade was made by Professor D. J MacDonald, then of Ohio State University, now Educational Director of the Lithographic Foundation, New York City [13]

*Chief differences* He groups the chief differences under the following four heads:

1. A begins by listing all the jobs in the trade, S begins by listing the unit operations in the trade, which he considers the basic units of instruction
2. A appears to be more concerned than S in having the student master what he needs to know at the time to fit him for efficient work.
3. S appears to put greater emphasis than does A upon placing greater responsibility on students relatively early in their training program
4. Both A and S would give students statements showing the sequence of what they are to do. A limits himself to a statement of the sequential operations S gives the learner the trade analysis sheet with the aid of which he is expected to make the job analysis. The sheet contains definite instructions and references

*Similarities.* The methods are obviously in agreement that (1) important items of related knowledge should be inventoried and used at the appropriate time; (2) demonstrations by the teacher should be used when needed; (3) questions that tend to cause learners to reason out the *why* of work done should be used

MacDonald's critical discussion is worthy of careful study, though it is not within the purpose of this book to report upon it in detail. The gist of his summary and suggestions is:

1. In spite of differences in procedure, both plans deserve high rating
2. In the matter of adapting subject matter to learner ability, both rank high in some respects and low in others
3. As far as lesson planning features are concerned, "A's excellent detail finds no counterpart whatsoever in S's method."

MacDonald would employ both methods in part. He would shift from one to the other as needed and determined

[13] D J MacDonald, "A Comparison and Criticism of the Allen and Selvidge Methods of Teaching a Trade," *Industrial Arts Magazine,* Vol. XII, No. 11, November, 1923, pp 413-9

by the "intelligence and general aggressiveness" of the learners. He would develop in students the ability to analyze and to plan at the earliest opportunity Furthermore, since, as he says, there is a strong tendency for shop teachers to follow lines of least resistance, he inclines strongly to the view that "the gradual introduction of S's method would inevitably assure better results."

STONE'S COMPARISON OF THE ALLEN, SELVIDGE, AND CHARTERS TECHNIQUES.[14] As Dr. William H. Stone of the University of Missouri saw it, Allen, Selvidge, and Charters have each presented a method of vocational analysis chiefly for the derivation of instructional material He expressed the belief that the Allen method is specifically applicable to adult vocational education for skilled or employed persons, that the Selvidge method is especially well suited to "skilled mechanics-to-be"—those attending full-time vocational schools, and that the Charters method is specifically applicable to the study of semi-professional vocations

If these distinctions are kept in mind and if each method is considered in its appropriate field, Stone had "little adverse criticism to offer" However, when an attempt is made to use the methods out of their field, the procedures become unwieldy

He pointed out that both Allen and Selvidge use the job for instructional purposes The difference is that Allen divides it into "jumping-off places," whereas Selvidge employs individual instruction sheets, illustrated and supplemented by demonstrations.

Charters and Whitley's study makes a distinct contribution not attempted by Allen or Selvidge in that it tries to determine desirable character traits and to make them objective in the teaching process.

CHARTERS AND WHITLEY'S ANALYSIS OF SECRETARIAL DUTIES An extensive analysis of secretarial duties and traits was made under the direction of Dr W W. Charters [15]

[14] William H Stone, "Review and Criticism of Analysis by the Allen, Selvidge, and Charters Method," *Industrial Education Magazine*, Vol XXVI, No 11, May, 1925, pp 321-5

[15] W W Charters and Isadore Whitley, *Analysis of Secretarial Duties and Traits*, Williams & Wilkins Co, Baltimore, Maryland, 1924

Isadore B Whitley was in immediate charge of the study, which was financed by the National Junior Personnel Service, Inc , Anna Y. Reed, Director

The results as well as the techniques employed should be of interest to students of education The problem was to determine the duties performed by secretaries to business men and administrators The study was completed in 11 months. Three major assistants were employed, with Paul S Lomax serving as consultant

From interviews with 125 secretaries and questionnaires filled out by 715 secretaries a total of 871 duties was recorded. These 871 duties were analyzed as to frequency and ranked in that order The median number of duties performed by individual secretaries was found to be approximately 130. Of these, 87 duties were discovered to be "quite uniform in all occupations."

The authors of the study expressed the belief that the study of duties is of interest to at least three groups of persons—namely, employers of secretaries, secretaries, and educators Employers, it was hoped, will find in the study suggestions as to what they may expect of secretaries. Secretaries may wish to use the study as an index of what they may be expected to know and to be able to do. Educators can turn to the study as a more reliable analysis than had been made previously of duties and traits that need to be incorporated in courses of study for secretaries and developed in the classroom Duty differences are also revealed

Fortunately the analysis is described in considerable detail. This description is of special value to the serious student who may be interested in the study either for its findings or as an example of analysis technique.

Part II of the study is an analysis of secretarial traits "which are conspicuously possessed by successful secretaries and are conspicuously absent in unsuccessful secretaries," and an attempt "to determine the relative importance of those traits "

To this end the following four steps were taken: (1) prominent men, who, it was believed, had superior secretaries, were interviewed to find out what secretarial traits they held to be important; (2) the results of these interviews

were translated into abstract traits; (3) the traits were defined in terms of trait-actions; and (4) the traits were ranked according to frequency of mention in order to reveal as objectively and concretely as possible the judgments of employers

To make the study as reliable as possible, the questionnaires were planned with care, interviewers were trained, interviewees were selected with discrimination, and methods of recording and of evaluating were worked out. The frequency rating revealed that, contrary to popular opinion, personal appearance was held to be less important than nine other factors. The ten out of twenty-four traits considered most significant were in order: accuracy, responsibility, dependability, intelligence, courtesy, initiative, judgment, tact, personal pleasantness, and personal appearance.[16]

Bowman's Contribution to Job Analysis. Over a period of years Dean Clyde A Bowman, long associated with the Stout Institute, Menomonie, Wisconsin, has made a signal contribution through his exposition of graphic aids in occupational analysis. As early as 1924 he published under the title *Graphic Aids in Occupational Analysis* previously used notes and articles relating to graphical analysis [17] This book is worthy of careful study by teachers and students of practical arts and of vocational education, counselors, analysts, and others The volume not only contains a wealth of carefully prepared graphical analyses but, even more important, serves as a concrete example of the advantages to be attained through the technique. It is quite obvious that graphical analysis has many applications and certain distinct advantages over verbal presentation.

Graphical analysis is an aid to accurate analysis, intelligent selection, objective presentation, and reliable evaluation. Through it teaching content can be determined more scientifically; more appropriate methods of instruction can be selected; and better correlations can be achieved. It is

[16] See also Frederick G. Nichols, *The Personal Secretary; Differentiating Duties and Essential Personal Traits*, Harvard University Press, Cambridge, 1934

[17] Clyde A Bowman, *Graphic Aids in Occupational Analysis*, The Bruce Publishing Co, 1924.

exceedingly difficult to express satisfactorily in words what can easily be shown through graph or diagram.

In *Graphic Aids in Occupational Analysis,* Bowman has presented five significant kinds of material: (1) the relations of youth to industry; (2) a variety of lesson plans; (3) guidance opportunities and responsibilities in the junior high schools; (4) senior high school guidance opportunities and responsibilities; and (5) an analysis of modern occupations in relation to guidance opportunities and responsibilities in vocational schools.

HAYNES' MODIFICATION OF THE ALLEN TECHNIQUE. Among the pioneers in developing trade analysis in the United States is Merritt W Haynes, for many years Director of Vocational Education, Bayonne, New Jersey, Assistant Director of Education, United Typothetae of America, and industrial teacher-trainer.[18]

In one of his earlier books, entitled *Teaching Shop Work,* he devotes a chapter to trade analysis He explains in detail in twelve unit lessons the importance of trade analysis and the way to teach trade analysis.

Haynes finds the blackboard of special help. He asks three or four competent tradesmen to step to the blackboard and write out their lists of jobs in accordance with assignment 1. He then invites the class to examine the lists Principles are deduced from specific cases supplied by the students. Successive lessons in job analysis are handled in much the same way—that is, by having several men place their work on the blackboard and then having the class examine, evaluate, and, if possible, make helpful suggestions for improvement. The teacher participates as he thinks wise The lesson topics used by Haynes follow:

1. The importance of trade analysis
2. Type jobs in a trade
3. Classification of type jobs trade blocks
4. Arranging type jobs in the order of their difficulty. progression-factors.
5. Analyzing a job into its contents—production, auxiliary, and technical.

[18] Merritt W. Haynes, *Teaching Shop Work, Unit Three, Trade Analysis,* Ginn and Company, New York, 1924

6. Production content: tools, equipment, and materials.
7. Analysis of auxiliary content for knowledge of stock
8. Analysis of auxiliary content for trade terms and safety precautions
9. Analysis of technical content trade calculations
10. Analysis of technical content trade science.
11. Analysis of technical content trade drawing
12. Analysis of technical content. trade judgment

Dr. Charles R. Allen and Commander Cushman were among the first persons, it seems evident, to use large sheets upon which the trade analyses are shown graphically and in their entirety. This has always seemed very desirable, since it helps to reveal relationships that cannot be shown as well by the use of small cards.

NICHOLS' ANALYSIS OF THE DUTIES AND TRAITS OF THE PERSONAL SECRETARY.[10] The general problem that led Professor Nichols to undertake an analysis of the "differentiating duties and essential personal traits" of the personal secretary was the widespread confusion and misunderstanding of the term secretary Ten years earlier Dr. W W. Charters had completed his comprehensive analysis showing that secretaries perform 871 duties. "In this list," Nichols pointed out, "will be found substantially every duty which is performed by any office worker In other words, if this list of duties is to be taken as the gauge of secretarial work, then a secretary may be regarded as a composite of all office workers."

To overcome this difficulty, Nichols based his data on a selected group of 213 individuals, each of whom was known to be a private secretary, also called a personal secretary, and excluded from his study many other kinds of secretaries and other office workers. A total of 63 cities and 16 states was represented by the 213 secretaries.

Both secretaries and employers ranked the following personal traits as essential to those who would be successful private secretaries intelligence, accuracy, personality, judgment, efficiency, loyalty, and executive ability Each of the

[10] Frederick G Nichols, aided by Sally Wile Wissman, *The Personal Secretary Differentiating Duties and Essential Personal Traits,* Harvard University Press, Cambridge, 1934

foregoing traits was explained so as to be more readily understood

The major duties of personal secretaries as determined by the combined judgment of the secretaries and employers were those listed in Table 5.

*Table 5*

MAJOR SECRETARIAL DUTIES—JUDGMENTS OF SECRETARIES AND EMPLOYERS

(According to F G Nichols)*

1 Take dictation
2. Transcribe shorthand notes
3 Handle callers.
4 Write original letters.
5 Organize facts
6 Answer letters
7 Organize office routine
8 Note information on letters.
9 Handle incoming mail
10 Read and release letters for mailing
11 Organize files and filing systems
12. Take care of personal accounts
13 Consult reference books
14 Make appointments
15 Do banking for employer
16. Write up minutes of meeting
17 Supervise clerical workers
18 Dictate letters
19 Take care of follow-up files.
20 Operate card index
21 Prepare reports

* F G Nichols, *The Personal Secretary Differentiating Duties and Essential Personal Traits,* Harvard University Press, Cambridge, Massachusetts, 1934, p 64, table 24

DICKINSON'S JOB OPERATIONS IN FARM MECHANICS.[20] Recognizing the job as the desirable teaching unit in farm mechanics, Dr Sherman Dickinson of the University of Missouri used a group of experienced agriculture teachers to formulate a series of job operations in farm mechanics. These operations, 154 in all, were arranged in 16 group jobs: woodwork, drawing, tool care, painting, rope work, glazing, harness repair, beltwork, sheet metal work, iron work, pipe fitting, concrete work, masonry, farm machinery, electricity, and gas engines

The job operations are in the form of job sheets. The following headings are used on the job sheets: Materials, Tools, Procedure, Questions, and References. An item, Special Information, is also included on some of the job sheets Illustrations are employed where needed.

[20] Sherman Dickinson, *Job Operations in Farm Mechanics,* Third Ed, The Interstate Printing Company, Danville, Illinois, 1936

GAINES' JOB ANALYSIS APPLIED TO THE TEACHING OF VOCATIONAL AGRICULTURE.[21] V. C Gaines has pioneered in showing the applications of techniques of job analysis to the teaching of vocational agriculture. He saw in job analysis in agriculture a procedure suited to making an intensive study of a farm enterprise or project in order to determine the essential problems, both operative and managerial, that are involved. Each problem could then be broken down into various factors, which might be classified as science, applied mathematics, English, economics, etc.

In agriculture "a 'job' is a definite necessary operation to be accomplished, such as plowing, planting, or cultivating, and includes all the necessary planning, study, decisions, and skills necessary to reach the objective." The subject of project analysis could be introduced, Gaines suggested, by asking students to list fifteen or twenty of the major operations or jobs that would be involved in producing a specified crop in that locality A major group like tree fruits could be broken down into these units:

1. Selecting the crop
2. Locating the crop
3. Preparing the land
4. Fertilizing the soil
5. Selecting the variety
6. Procuring nursery stock
7. Caring for nursery stock
8. Preparing for planting
9. Fumigation
10. Laying-off for planting
11. Planting
12. Tillage
13. Irrigation
14. Summer pruning
15. Thinning
16. Disease and insect control
17. Construction jobs (boxes, ladders, etc )
18. Harvesting
19. Curing
20. Marketing
21. Records

A MODERN PLANT ADDED BY HILL AND EWING. In their *Materials and Methods for Vocational Training,*[22] Hill and Ewing have combined to advantage discussions of trade analysis graphically presented and of preparing instruction sheets. They have succeeded in bringing together in useful form a number of the best elements of the techniques of job and trade analysis that have been advocated by such pioneers

[21] Issued by the University of California in cooperation with the State Board of Education, Berkeley, California, June, 1922

[22] Warren E Hill and Claude H Ewing, *Materials and Methods for Vocational Training*, McGraw-Hill Book Company, Inc, 1942

in the field as Allen, Wright, Prosser, Selvidge, Rasche, and Bowman.

Graphical analyses of steam fitting, painting and decorating, plastering, and machine shop trades are included. Foods and trade sewing are also represented through graphical analyses.

FRYKLUND'S STREAMLINED PRESENTATION OF TRADE AND JOB ANALYSIS A modern presentation of trade and job analysis is found in *Trade and Job Analysis* by Verne C Fryklund.[23] In this book Fryklund calls attention to kinds of analysis and the distinct features of each He explains and illustrates what is meant by the technical terms usually employed, such as job, operation, process

His presentation of making the analysis, including graphical charts illustrating how to secure an instructional order, is especially helpful Assignment and discussion topics, as well as references for further reading, add to the value of the book.

JOB ANALYSIS IN BUSINESS EDUCATION.[24] Valuable insight into job analysis applied in the field of business education may be obtained by examining the list of studies recorded by A. Sidney Galper. He calls attention to the fact that training must conform to the actual practices in occupational fields and that job analysis and job sheets are "playing an important part in the program of business education."

Galper lists job analyses in the following areas of business education · bookkeeping, stenography, salesmanship and store work, office machines, and clerical work. To illustrate the increasing number of specific jobs in offices and stores, he gives a partial list of more than sixty of them.

RECORD FORMS FOR JOB ANALYSIS. For convenience in analyzing a trade or a job a series of record forms may be useful It does not necessarily follow that the results should be recorded on separate sheets in the order shown. Nor is

[23] Verne C Fryklund, *Trade and Job Analysis,* The Bruce Publishing Co , 1942.

[24] A Sidney Galper, "Job Analysis in Business Education," *A V A. Journal and News Bulletin,* Vol XV, No 3, September, 1940, pp 169-72.

it to be inferred that the headings need to conform to those about to be described The form, size, shape, and nature of record forms should be suited to circumstances. Sample record forms follow.

TRADE AND JOB ANALYSIS

______________________

(Name of trade or occupation)

by

______________________

______________________

Address

______________________

Date

Prepared under Direction of

______________________

Form T-1

OBJECTIVES OF THE UNITS OF LEARNING TO BE ANALYZED

| Unit or Block No | Prepare a clear and direct statement of the objective or purpose of the instruction |
|---|---|
| | |

Form T-2

## INVENTORY OF INSTRUCTION UNITS

Make an inventory of the essential divisions or units of the trade or occupation. This may be in the nature of a list of jobs, or instructional units, whichever is more suitable

| No | Name of Trade, Occupation, or Unit |
|---|---|
| | |
| Form T-3 | |

## TRADE OR OCCUPATION

| I<br>Division<br>Block or Unit | II<br>What worker should be able to do | III<br>What worker should know |
|---|---|---|
| | | |
| Form T-4 | | |

## TOOLS AND MATERIALS

| Machines, Parts, Tools, Equipment | Materials |
|---|---|
| | |
| Form T 5 | |

RELATED MATHEMATICS

| Jobs, Operations, or Other Units of Instruction | Principles Involved and Examples of Typical Problems |
|---|---|
| | |
| Form T-6 | |

RELATED SCIENCE

| Jobs, Operations, or Other Units of Instruction | Principles Involved and Examples of Typical Problems |
|---|---|
| | |
| Form T-7 | |

RELATED BLUEPRINT READING, SKETCHING, AND DRAFTING

| Jobs, Operations, or Other Units of Instruction | Principles Involved and Examples of Typical Problems |
|---|---|
| | |
| Form T 8 | |

| RELATED HEALTH, SAFETY, AND HYGIENE | |
|---|---|
| Operations, Jobs, or Other Units of Instruction | Principles, Problems, and What Learner Must Know |
| | |
| Form T-9 | |

| TRADE OR OCCUPATIONAL TERMS | |
|---|---|
| List of Terms | Definition of Terms |
| | |
| Form T-10 | |

## *FOR DISCUSSION*

1. Distinguish between trade analysis and job analysis.
2. Describe a typical job description or job specification.
3 Explain what is meant by time and motion study and show its applications.
4. Why are trade and job analyses of special interest to educators?
5 Report upon Manning Tables.
6. Describe the Allen method as fully as possible
7. What were the items used on a typical analysis sheet used by Allen and Cushman in *Analysis of Machinist's Trade?*
8. Name several trade analyses made by members of the vocational education staff of the United States Office of Education.
9. Describe in detail the Selvidge plan of trade analysis
10. Present Selvidge's ideas about instruction sheets
11 Compare the Allen and the Selvidge methods of analysis
12 Describe and appraise Charters and Whitley's analysis of secretarial duties.
13. Describe and evaluate Bowman's contribution to job and occupational analysis.

14 What values do you see in Nichols' analysis of duties and traits of personal secretaries?

15 Illustrate how job analysis techniques may be used to advantage in agricultural education

16. Cite references to job analysis applied to home economics education

17 Examine and report upon a recent book dealing with trade or job analysis

18 Examine an analysis used for instructional purposes with trainees in a war production industry and report your findings

## FOR FURTHER READING


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(1) *Agricultural Education*

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Bulletin No 118, *Analysis of the Operative Jobs of a Corn-Growing Enterprise*

Bulletin No 154, *Analysis of Special Jobs in Quality Milk Production*

(2) *Trade and Industrial Education*

Bulletin No 106, *Stone Setting*

Bulletin No 137, *Granite Cutting.*

Bulletin No 155, *Fire Fighting*

Bulletin No 168, *Vocational Training for the Pulp and Paper Industry*

Bulletin No. 200, *Related Instruction for Plumber Apprentices.*

Bulletin No. 208, *Brick Laying An Analysis of the Trade*

(3) *Home Economics Education.*

Bulletin No 37, *Survey of Needs in the Field of Vocational Home Economics Education*

Bulletin No 194, *Duties and Responsibilities of the General Household Employee*

(4) *Business Education*

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# CHAPTER 14

## *Vocational Education Surveys: How to Organize and Conduct Them*

The vocational education survey is essentially a diagnostic study of job analysis in which the community is the unit. Through the survey vital facts may become known; significant beliefs of experienced individuals may be gathered; and pertinent evaluations may be made.

The survey may reveal the nature and scope of the vocational education that is needed to meet the requirements of today and tomorrow It may disclose the nature of the subject-matter that needs to be taught, the materials that should be used, the processes that must be mastered, the equipment which is needed, and the housing that is required

The survey may also reveal the qualifications that students should possess and that teachers should have. Other findings may relate to the available labor supply in a given area The survey may also serve as a basis for developing cooperation between important groups. Other objectives may also be served.

A Point of View. It deserves to be kept in mind that most of us do not relish the idea of being surveyed, at least not by persons who have very limited backgrounds of experience on the basis of which to appreciate and evaluate correctly what others have spent long years to accomplish or develop.

It appears evident that vocational education surveys greatly need the guidance of experienced men and women who are thoroughly familiar with the requirements of occupational life, with what vocational schools can do, and with the techniques of making survey studies that are valid, reliable, and constructive The more educational surveys of various kinds that are examined, the clearer it becomes that surveys need to be planned, sponsored, and carried out

by persons of demonstrated ability and high standing in their particular areas of service.

WHO SHOULD MAKE VOCATIONAL EDUCATION SURVEYS. Since vocational education must be adapted to continuous changes of many kinds, it appears reasonable to look upon surveys and related studies as continuous procedures in which a major effort is made from time to time, supplemented by more frequent modifications of a less extensive sort. Surveys are usually undertaken by three groups: (1) local individuals or groups; (2) those from outside the community; and (3) combinations of the two groups mentioned.

There are advantages as well as disadvantages in all of them. The problem of determining who should conduct a survey should be answered by looking into the relative merits of the various plans that could be used

In general, there are distinct advantages in using local people for survey purposes. Among these may be mentioned: (1) Much useful information is often gained which will not appear in the records but is an asset if it can be kept in the community. (2) Many valuable personal contacts are made which may have a distinct bearing upon the future welfare of the program If these contacts are made by persons who are likely to remain in the community for some time, so much the better (3) One of the distinct benefits from surveys is the individual development of those who participate. The survey, therefore, offers opportunities for professional growth which may be capitalized upon by using persons in the community. (4) It is usually less expensive to use local persons than to bring them in from a distance

In some instances it is best to have the survey carried on by outside persons. This is particularly true if qualified local persons are not available or if the subject of the survey is distinctly controversial, as may be true of a survey sponsored by a faction to attain objectives of special interest to them.

If the findings of a survey are such that making them public may cause those who revealed them to have their tenure as administrators or teachers endangered, it may be more satisfactory to have the recommendations made through outside persons whose tenure is unlikely to be influ-

enced thereby. The outside persons may also bring to their task experience which should be helpful. Sometimes outside assistance may be secured gratis or at relatively low cost For example, a state department of education or a state college or university may be in a position to render service free or inexpensively.

In other instances it may prove best to use a combination of local persons and of outsiders, as has often been done. Every case should be decided in the light of its specific conditions.

General Outlines for Survey Reports. It is self-evident that the outlines for survey reports must show much variation. The following outlines contain concrete examples of what major topics may be appropriate in some cases These topics should naturally be modified to suit each individual case.

### A General Outline for a Vocational Education Survey

I. Introduction or preface
II. Purposes and scope of the survey
III. The Survey Steering Committee, Advisory Committee, and staff
IV. Cooperating individuals, organizations, and groups.
V. Means and methods used in the survey.
VI. Presentation of the survey data.[1]
  A Data of a general nature.
  B. Data relating to specific occupations, industries, places of business, groups, classes, housing, etc.
VII. Conclusions.
VIII. Recommendations

### A General Outline for an Occupational Survey

Preface (including acknowledgments)
I. Introduction.
  A. Need for the survey
  B Purpose of the survey.
  C Scope of the survey
  D. Means and methods of survey
II. Data supplied by employers, labor, and others.
  A. Number of workers by occupational groups
  B. Number of workers by sex

[1] Item VI may need to be divided into a number of major divisions, thereby increasing the total number of divisions in the outline.

C. Number of workers for whom training is desired
D Kinds and extent of vocational education most needed.
E Ways in which schools may cooperate.

III. Implications of data secured
IV Conclusions (based on findings)
V. Curriculum recommendations
A Guidance
B. The junior high school curriculum.
C. All-day vocational program
D Part-time vocational classes
E Evening vocational classes.
F Adults
G School-employer-labor-worker cooperation.

VI Other recommendations
A Housing.
B. Equipment
C Material of instruction
D. The teaching force
E Coordination.

VII Suggestions for further study and action.

Steps in Making a Vocational Survey. As a possible check-list or aid to individuals who may desire to undertake a vocational survey, there follows a list of some of the steps that may be helpful in carrying out such an undertaking. It is unlikely that best results will be attained by following the list rigidly and by limiting the activities to the items mentioned A comprehensive survey will probably require additional steps, a short study may involve less Certainly no single set of suggested steps can hope to meet all requirements.

Some Suggested Steps in Making a Vocational Education Survey

1. In the event that the initiator of the survey is not experienced in vocational education survey theory and practice, it is suggested that he:

   *a* Acquaint himself with the basic theory involved in surveys.
   *b.* Study survey reports
   *c.* Reflect deliberately upon the proposed enterprise (1) as to general plan, (2) in detail, as to staff, time, cost, problems, benefits
   *d* Discuss the proposed plan with persons of survey experience

2 Make a tentative outline of the general plan and of essential details
3 Discuss the tentative plan with the superintendent of schools or with his principal or director
4 Submit the plan through the proper administrative channel to the Board of Education for approval

5. Recommend the appointment of a (1) director, (2) general steering committee; (3) survey advisory committee, and (4) survey staff
6. Lay tentative plans before the committees mentioned State objectives, explain tentative plans, ask for suggestions, approval, and active cooperation.
7. Help to develop public support for the project. Use the press, service clubs, and other organizations and individuals but keep in the background personally as much as possible Let the announcements come through the superintendent of schools, the president of the board, the director of vocational education, or other key persons.
8. Enlist able talent. Go to top men and women Get strong sponsorship all along the line. Make it a cooperative affair
9. Call one or more preliminary meetings of the whole staff to present the survey plan, to explain it, to answer questions, and to make modifications where advisable Later meet division or department heads to cover matters of special interest to each
10. Make sure that those who are to be surveyed or who are to provide the data desired fully understand what is contemplated and will cooperate.
11. Give special training when needed to interviewers and others and specific directions when required Delegate authority when feasible
12. Establish time limits within which work is to be completed Agree upon the scope as well as the nature of the service to be rendered by each participant. Specify the extent and nature of written reports that are to be made, and the form they are to take.
13. Keep a constant check on progress Be prepared to expedite plans, to settle problems requiring action, and to suggest ways and means of securing and processing data and of reporting results
14. Before the report goes to the printer, have it reviewed carefully by those who should pass on it Have galley and page proofs checked by several persons for technical accuracy, as well as for English.

THE DIRECTOR OF THE SURVEY. Much of the success of a survey rests upon the director and his staff Although it is desirable to have a director who is an expert in the major field of interest involved, it is equally important that the director be a capable organizer and administrator. A person who has a good general understanding of vocational education and survey procedures and techniques, who has outstanding organizing and administrative capacity coupled with sound judgment and tact, should be able to call to his assistance the expert workers that are needed to get satisfactory results

A good administrator delegates responsibilities wisely. If he is able to call to his aid the best people available and

to use their findings and recommendations, the chances are in favor of results that will be truly helpful.

Among the initial steps taken by the experienced survey director is a study of the proposed enterprise from many angles. A survey should always be taken seriously. It deserves, and to be successful it must have, the benefit of extensive and thorough preliminary planning before it is undertaken and consistent, persevering effort from start to finish

A study of other surveys that have been published, especially those of a similar nature, is usually helpful. The reports give insight into how the work was planned and carried out. The best features of several surveys may be incorporated in the proposed plan

It is wise to give considerable attention to the salient general features of the contemplated survey and to devote attention to a host of smaller but essential details. It is unwise, however, for the director to work out the plan in full with the expectation of having advisory and steering committees and administrative heads "rubber-stamp" a plan developed in such a manner.

WORKING THROUGH PROPER ADMINISTRATIVE CHANNELS. People in the community, as well as in schools, need to be protected against hasty, unwarranted studies or surveys. Before a survey is undertaken in a community there should be approval from the chief local school officer. If the investigation is important and extensive in scope, approval is often sought through the proper administrative channel from the board of education

When the proposed survey comes up for consideration before the board of education, the person who is tentatively assuming the duties of a director should be prepared to explain the plans in as much detail as the board may wish. Indeed, it is desirable to have copies of the tentative plan in the hands of members of the board at the time the meeting is called

If state or federal funds are to be involved, the approval of the proper state officer should be secured in writing before the survey is begun Of course, cooperation with the state

office should not be limited to matters of a mandatory nature If the state office can be of help in the survey, representatives of the local community should feel free to ask for it.

SECURING EFFECTIVE SPONSORSHIP. In every community there are key people and key organizations The success or failure of a survey is determined to an appreciable extent by its sponsors

Contacts are often made through employers' associations, labor organizations, service clubs, the Parent-Teachers' Association, and other groups. The press can do much to help or to hinder a survey. First contacts are often arranged through the superintendent of schools or the director of vocational education. Some contacts may be made to good advantage through others—for example, vocational teachers who have good connections with local unions or employers

GETTING GOOD ADVISORY SERVICE Helpful advice may come through many channels, some of which are not foreseen. The secret of getting helpful advice lies in going to the right sources in the right way

It is probable that the local advisory committee on vocational education can be of considerable help in such matters as making sound recommendations on the kinds of vocational education that should be undertaken, the extent of the training program needed, the nature of the subject matter that is vital, and the facilities required to put the proposed program into effect.

A small, well-selected general steering committee can function in such ways as these: (1) pass upon objectives, policies, procedures, and related matters; and (2) serve as a reviewing committee for the survey report This committee may be in addition to and distinct from the advisory committee for vocational education previously mentioned. In the event that the survey should be a relatively simple and short diagnostic study, it may not be necessary to have a general steering committee. If, on the other hand, the survey is to include several distinct areas of investigation, such as agricultural, business, homemaking, and trade and industrial education, it would appear desirable to have on

the general steering committee one person for each of the categories covered by the survey. Additional members may represent labor, employers, and important community interests. The superintendent of schools or the director of vocational education may serve as chairman but should not vote.

It is not always in the public interest to publish all facts revealed through surveys. Neither is it always legal to do so. For example, under certain conditions the United States Bureau of the Census permits manufacturers to submit confidential reports on the number and kind of workers employed and the nature and extent of the business. It would be unlawful to give such data through a local survey report without the approval of the employers concerned

SELECTING THE SURVEY STAFF ON THE BASIS OF ABILITY. The matter of who should make the survey was discussed from certain angles at the beginning of this chapter. Irrespective of whether the persons are members of the community or from outside it every staff member should be selected for his or her fitness to do what needs to be done. Sometimes, to be sure, special instructions and training need be given to get satisfactory results. Other factors being equal, it is distinctly advantageous to use staff members who have a rich background of experience for the job to be done, such as vocational teachers possess. These experienced persons may be assisted by others who have had more limited training

Frequently a combination of men and women possessing a considerable range of talents and knowledge is found distinctly helpful In the search for talent those who are recognized as leaders or experts in their respective fields of service should be sought. Each contact to be made and every task to be performed should be appraised with care so that it will be performed by someone who will do it well.

HOLDING PRELIMINARY STAFF MEETINGS Matters of policy and procedure that have general application can be presented to advantage through one or more staff meetings, at least one of which may well be held before the staff starts its work Oral discussion may be supplemented with

mimeographed directions and suggestions. Before the staff can work to advantage it needs a clear understanding of what each person is to do, how he is to do it, when the work is to be done, and how the results are to be reported.

Among the information needed may be such items as these:

1. Who is to be contacted for certain information?
2. How are contacts to be made?
3. What should be done?
4. What needs to be avoided?
5. In what form is the report to be compiled?
6. How extensive is the report to be?
7. What format is to be followed?
8. Who is to do the typing?
9. If charts, diagrams, or photographs are to be included, who is to make or secure them?
10. How many of the illustrations can be used?
11. Are members of the survey staff to be reimbursed for travel, use of telephone, or other expenses?
12. How thorough a coverage are staff members expected to make—that is, will representative sampling suffice?
13. Who will edit the reports?
14. Who will read proof?
15. Who will be responsible for calling committee meetings?
16. Who may be called in as consultant? Under what circumstances? By whom?
17. Who is to develop and make available the inquiry forms?
18. Who will determine how the data are to be processed?

In general, problems that apply to individual staff members only or to a limited portion of the staff may be handled to advantage through section or departmental meetings following one or more general meetings

DETERMINING TIME LIMITS. One of the most difficult features of an extensive survey is to determine how quickly it can be completed in a satisfactory manner with the man power that can be provided. Individuals vary greatly in the speed with which they can secure the data needed and in the time it takes them to put their findings in acceptable form

Tentative time limits need to be set for the various phases of the study and should be adhered to if possible. It is especially helpful if it can be determined at the outset how many words or pages of typed material may be submitted

upon each topic or for each unit of the report. Perhaps it is well to state this within definite limits—for example, from 10 to 25 pages, double-spaced, on $8\frac{1}{2} \times 11$ inch paper, having specified margins. Before such limits can be set cost data must be secured.

ESTIMATING THE COST OF THE SURVEY. The extent of a survey is often determined by financial considerations. Many cost-saving practices are sometimes used, such as depending upon volunteer staff members who serve without compensation, using business education students to type reports, having drafting students make charts, using the art department to prepare suitable illustrations, asking some of the better students in English to read proof, and using the school print shop to print the report.

Sometimes the cost for surveys is borne by foundations or by private subscription In other instances, the costs may be charged to local, state, or federal funds. But no matter where the funds came from, their amount must be determined. This task requires detailed estimating in which every item of labor and material needs to be considered.

After the funds and services available for the survey are known, the director may need to revise his recommendations as to the scope and extent of the inquiry, the form in which the report is to be submitted, and the nature and number of the illustrations, as well as the number of pages the complete report is to contain.

DETERMINING THE FORMAT FOR THE REPORT. By format is meant the shape, size, and general make-up of a publication. To reduce the time and cost of editing the survey report, it is helpful to agree upon the format of the original manuscript that is to be used for duplication or printing.

Style sheets can be prepared They may show, for example, the size and kind of paper to be used, the widths of margins, spacings, indentations, and size and style of typewriter type-face. The system of notation can be illustrated. Standard abbreviations can be indicated. Center and side headings may be shown, including the capitalization in each instance Where pages are to be numbered and how

footnotes are to be treated are other items of interest to those who are to prepare the manuscript

Information may be given as to how large charts are to be made and how photographs and other illustrations are to be inserted, numbered, and captioned. It is suggested that illustrations such as photographs, charts, and diagrams be mounted on sheets separate from the manuscript This makes it possible to remove them for reproduction purposes without disturbing the continuity of the material that is to be set in type. When an illustration is to appear on a given page—say page 40—the page bearing the illustration may be numbered 40a or 40 1, as desired

Making the Report Fair and Impartial. Perhaps no characteristics of a survey report are more important than that the findings shall be fair and impartial. The mere presentation of factual data may not accomplish those objectives; the data may need explanation and presentation from various angles For example, a study might truthfully reveal that children in one-teacher rural schools in a given area can spell better than those in the same grade in consolidated schools in the same area The bare fact might cause many persons to come to the unwarranted conclusion that one-teacher schools are better than consolidated schools. But when other facts are brought out, particularly that the consolidated schools offer a wider, richer program including valuable activities not given in the small schools, it is understood that superiority in spelling does not necessarily mean superiority in education as a whole

The published objectives of surveys do not always reveal the really basic purposes. There are instances when surveys are used as smoke screens and educational facts are presented in a biased manner. Everyone engaged in surveys should strive to make the report above all else fair and impartial.

Making the Report Constructive It goes almost without saying that to be good a survey report must be constructive It is possible to do a great deal of work and to find out many facts without doing much of anything con-

structive with the data developed. There is no use in moving a mountain unless the results justify the effort.

The value of a survey report depends to a considerable extent upon its recommendations and conclusions If certain conditions obtain, what should be done about them? Can the survey data be used with reliability to point out a helpful program of a long-range nature? If so, does the report do this? It may be that there are many problems that need to be solved—for example, vocational education for youth in the full-time school, for women and girls in gainful employment, for mothers and housewives, for apprentices, for semi-skilled workers, and for others needing conversion training Does the survey report deal with each problem constructively and thoroughly?

MAKING THE RECOMMENDATIONS CLEAR. Let us keep in mind that the survey report is generally intended for citizens at large, for laymen who are not specialists in vocational education nor in statistics. Many of the men and women who it is hoped will read the report are unfamiliar with many technical words commonly used by educators.

Several things can be done to produce a survey report that many persons will read with profit. Among them are: (1) if possible, illustrations, such as photographs, drawings, and diagrams, should be used where feasible, (2) the specific findings and recommendations should be grouped near the beginning or at the close of the report so that persons whose time or interest is limited may read the most essential parts quickly; (3) each recommendation should be clear—that is, expressed in words and sentences that everyone can understand and can read easily

In some instances it may be advisable to make recommendations throughout the report by units. Nevertheless it may be wise to summarize them, perhaps to simplify them, and to give them where they can be found readily. A good alphabetical index, in addition to the usual table of contents, is appreciated by busy readers.

SUGGESTING WAYS AND MEANS FOR FURTHER INQUIRY. The more attention a person gives to a particular problem,

the deeper becomes his insight into it It is a common experience among research workers to find, as they proceed with their investigation, that there are related problems they cannot undertake, unexplored avenues of promise they cannot explore, and ways and means which they are not in a position to use at the time. It would contribute to the advancement of knowledge if individuals reporting upon research, including surveys, would point out additional things that need to be done and would suggest ways and means of attaining the ends desired.

In planning desirable ways of processing data, standard works in research, statistics, and tests and measurements offer suggestions. Others may be obtained through critical studies of survey reports The latter studies need not necessarily be in the investigator's major field of interest. For example, helpful suggestions for a survey of vocational education may be gleaned from surveys of general education, and vice versa Ideas helpful in a survey of industrial education may be found in surveys of business, home economics, and agricultural education

INCORPORATING SUGGESTIONS FOR IMPLEMENTATION. It is well to make a survey report constructive, to state recommendations clearly, and to bring out aspects that require further inquiry However, this is not enough. A final step needs to be taken The survey report will be more vital if specific ways and means are pointed out that will implement the recommendations—that is, will put them into operation and make them effective.

There are various methods of implementation. If the procedures necessary are clear, they should be pointed out; if further studies of the essential policies, procedures, or means are needed, the suggestion may be in order that the matter be referred to a specified individual, committee, or group with instructions to make recommendations to the board of education or with power to act. Time limits for action can be specified and financial limitations and sources for funds described The legal basis for the proposed action may be cited. Means of cooperation can be indicated and public support mustered

PROVIDING FOR RELIABLE CHECKING. In view of the fact that surveys are often made by people who have other responsibilities and who are working under pressure, precautions need to be taken to avoid errors in the report. These fall into three groups. errors in English, in technical or factual content, and of omission.

The transposition of one letter changes a peaceful marital relation to a warring martial one The omission of two commas would completely change the meaning of this sentence. The teacher, said the president of the board of education, is illiterate.

It is desirable to have copy for the survey report checked by the authors and by several other competent persons It adds to the consistency of the report as a whole if all contributors and those checking the report adhere to the prepared style sheet and to some designated dictionary For example, it is well to avoid using curricula in one place and curriculums in another.

Quotations should be copied exactly from the original, unless a typographical error is evident, even though the capitalization or punctuation does not conform to the author's own practice For example, the *United States Government Printing Office Style Manual* calls for capitalizing Federal, as in Federal funds, whereas other authorities write federal funds.

DETERMINING POLICY FOR RELEASES Before information about a contemplated survey is made public, the whole matter of publicity should be studied. When, how, and through whom should announcements be released? How can they be made most effective? Should oral explanations made before civic bodies be publicized? By whom? Should key persons or organizations be mentioned as sponsors? If so, who should they be? These and other questions call for planned action.

In some instances survey findings are released from time to time through the press while the survey is progressing. The thought is to keep people informed and interested in the study Sometimes the findings of the survey are treated confidentially until the entire report has been completed and

approved by the general steering committee, the director of the survey, or whoever has that responsibility. When the latter plan is followed the press may be given news items featuring the survey, perhaps describing the general plans and telling what is to be done, what is in progress, and who is participating, without mentioning the findings of the survey staff The nature of the survey, the purposes that are to be served, and the methods of attaining them advantageously are perhaps the chief factors on the basis of which questions relating to publicity should be answered.

MAKING RECORD FORMS PRACTICAL There are several features of survey record forms and inquiry blanks that are worthy of attention. They include·

1 *Validity* Does the record form or inquiry blank call for the data needed to measure what it is supposed to?

2 *Reliability*. Does the record form or inquiry blank measure with accuracy and consistency what it is supposed to?

3. *Objectivity*. Will two or more competent examiners or a single competent examiner at different times consistently place the same value or rating upon each item?

When factual data are desired, each item in the survey record form or inquiry blank should be so framed that an objective response is given. For example, an item might read, "How often do you perform that job?" A person might answer in all seriousness and without desiring to evade the question, "As often as necessary." This answer is, of course, not objective. An objective answer suitable for statistical treatment would be elicited if the question were worded, "Show how often you perform that job by encircling the appropriate number of times a week: 0 to 5, 5 to 10; 10 to 15; 15 to 20; 20 to 25; other ______ "

There are times when the judgment of experienced persons is desired Then responses may be more or less subjective In framing each item, one should try to anticipate the different ways it may be answered and to decide whether the wording is likely to elicit data desired in the most objective manner.

4. *Economy of time*. Other factors being equal, survey

record forms will meet with approval if they are composed neatly, if the arrangement is attractive, and if the form can be filled out with a minimum of effort and time. To be specific, items that merely require checking, underscoring, or encircling are likely to be regarded with greater favor than those in which words must be written.

Every record form should be stripped of nonessentials. It should be adequate for the purpose, but unencumbered by a single item of doubtful value Under no circumstances should the record forms be of unwarranted length What constitutes unwarranted length depends upon circumstances

5 *Confidential information* Do the record forms call for information of a confidential nature? If it is held necessary to ask for such data, it is advisable to give assurance that they will be used in ways that will protect the interests of those furnishing the information Such assurance should be in writing, perhaps on the form itself. It may also be wise to mention the matter orally.

The exact number of persons employed at any given time by an employer may be one form of confidential information The question, "How many persons do you employ?" may be unwise, especially if conditions are known to be abnormal A more useful and more tactful way of phrasing the question when the labor force is probably below normal may be, "How many persons do you normally employ?" It is not to be inferred that it is always unwise to ask for detailed information about the working force, the product, and trends in employment Many times such information is given without hesitation. It is desirable, however, that contacts with employers and others be made tactfully and that confidence be respected

LISTING KEY PERSONS, FIRMS, OR GROUPS References have already been made to the desirability of starting a survey correctly by contacting key persons The following record form, V S -1, may be found helpful.

In the event that the survey is to be made in a community where an extensive number of key persons need to be contacted, the list may be divided For example, there may be separate groups for business concerns, persons interested in

home economics, leaders in rural life, and key figures in industries and building trades.

VOCATIONAL EDUCATION SURVEY

(List of key persons, firms, groups)

| Community | State | Date |
|---|---|---|

NOTE List by groups or subdivisions, e g , Metal Trades, Building Trades, etc.

| Name of Person, Firm, or Group | Mailing Address | Telephone Number | Person to Contact | Remarks |
|---|---|---|---|---|
| 1. | | | | |
| 2. | | | | |
| 3 | | | | |
| 4. | | | | |
| 5 | | | | |
| | | | | |
| Form V. S.-1 | | | | Data by____ |

AN OVERVIEW OF A FIRM OR ESTABLISHMENT. Under certain conditions it becomes desirable to secure considerable information about a particular employer, firm, or establishment. In the event that the intention is to find out about the nature of the product or of the services rendered and the departments or divisions in the organization, together with the names of those in charge of them, a record form similar to V. S.-2 is suggested.

TRAINING REQUIRED BY A SPECIFIC ESTABLISHMENT. To ascertain the number of persons who need to be trained with the cooperation of the schools, it may be useful to begin by listing the occupations or payroll jobs held by such persons. Opposite each is placed the average number, or the

VOCATIONAL EDUCATION SURVEY

(An overview of the firm or establishment)

| Community | State | Date |
|---|---|---|

Name of firm or establishment____________________

Nature of products or services____________________

SCOPE OF ESTABLISHMENT

NOTE Underscore departments for which training is desired

| List of Departments | Heads of Departments |
|---|---|
| 1. | |
| 2 | |
| 3. | |
| 4 | |
| 5 | |

| Form V S-2 (Size 8½ × 11 inches) | Data by________ |
|---|---|

present number, whichever is preferred, of skilled workers, of helpers, and of apprentices. The reason for the separate figures is that each of the three groups may require separate treatment.

With the number of present employees as a basis and with labor turnover and the probable expansion of the force as additional factors to be considered, an estimate is made of the probable number of workers needed Relatively few employers can predict with accuracy how many persons they will employ more than one year in advance.

By comparing the ratio of employees who are likely to take training with those who are not and using that ratio on the probable number of persons who will be employed each year, estimates can be made of the number for whom

instruction should be planned Form V. S -3 has been set up to secure the information mentioned

VOCATIONAL EDUCATION SURVEY

(Training required by a specific establishment or business)

| Community | State | Date |
|---|---|---|

Name of establishment or business__________

Address__________ Person contacted__________ Telephone______

| Name of Occupation or Payroll Job for Which Training Is Desired | Average Number of Workers Employed | | | Estimated Number of New Workers Needed Each Year | | | Estimated Number of Workers Who May Want Training Each Year | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| | Skilled | Helpers | Apprentices | Skilled | Helpers | Apprentices | Skilled | Helpers | Apprentices | |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |

Form V S -3 (Size 8½ × 11 inches) Data by______

KINDS AND NUMBER OF CLASSES NEEDED BY ESTABLISHMENTS After the probable number of trainees has been estimated, there remains the further step of determining what kinds of classes are to be planned, how many classes will be needed, and whether they are to be evening, part-time, or all-day classes. Further to effectuate the program, it is desirable to come to an understanding as to how many hours a week will be involved, what the total number of hours required for each course will be, and when each is to begin and end This information may be recorded in Form V. S -4.

VOCATIONAL EDUCATION SURVEY

(Kinds and number of classes needed by establishments)

________________ Community ____________ State ______ Date

Name of establishment______________________________

Address____________ Person contacted__________ Telephone______

NOTE Use a separate form for each establishment

| Name of Course | Number to be Trained | Number Classes Required | Hours of Instruction a Week | Total Hours in Course | Course to Begin | Course to End | Type of Instruction | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Evening | Part-time | All-day | |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| | | | | | | | | | | |

Form V S-4 (Size 8½ × 11 inches) Data by________

SURVEY OF COOPERATIVE PART-TIME SALES TRAINING. An interesting survey was conducted in Pittsburgh, Pennsylvania, to find out to what extent the department stores would be interested in cooperating with the public schools in training for the distributive trades [2]

The study showed that most of the stores were interested Each store made its own decisions as to the types of jobs for which persons were to be trained, and each was urged to select its own students.

[2] Pittsburgh, Pa, Public Schools, *Report of an Initial Study of the Distributing Trades in Pittsburgh* (mimeographed), by Katherine Sheppard, Coordinator, under direction of Walter B. Jones, then Chief, Industrial Education, Pennsylvania State Department of Public Instruction, February, 1938

A plan was worked out permitting senior students to report to the stores at 3 P.M. and to work until 6 P M On Saturdays they were to be employed as long as needed. They averaged about twenty hours a week and were paid by the hour.

School schedules were adjusted to meet the requirements mentioned. Conferences were held between school counselors and employment managers. The young people selected had the dual responsibility of making good on the job and in school. Three out of twenty-five hired by one store did not succeed. Some students were wanted by several stores Each student in such cases was given his choice Some of the stores requested their student employees from specific high schools. The following form was one of those used in the survey.

DEPARTMENT STORE ATTITUDE TOWARD A TRAINING PROGRAM AS REFLECTED THROUGH INTERVIEWS

| Name of Store | Store Representative | Attitude of Store toward Program | Number of Cooperative Students Agreed Upon |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

Possible extensions of the program under way were discussed Specific recommendations were made. The appendix contains such useful materials as training programs (submitted by the stores) for student employees, a tentative course of study for cooperatives in salesmanship, department store rating sheets (of several kinds), a post-graduate course of study, and a cooperative program for retail training in high schools as outlined by the Retail Research Bureau of the University of Pittsburgh

AMERICAN VOCATIONAL ASSOCIATION SURVEY FORMS. Through its Committee on Research the American Vocational Association has issued several studies based on sur-

veys. One of these, *Occupational Adjustments of Vocational School Graduates,* Research Bulletin No. 1, 1940, was based on data secured in part through three survey forms entitled *Survey of Agricultural Graduates and Ex-Students, Survey of Home Economics Graduates and Ex-Students, Survey of Industrial Graduates and Ex-Students*

Each of the forms is neatly produced on 4 pages 8½ × 11 inches in size The forms are useful in making local and area studies of graduates and former students They were developed by committees on which the American Vocational Association, the State Department of Public Instruction, Harrisburg, Pennsylvania, the Williamsport Public Schools, and the Pennsylvania State College were represented.[3]

TECHNIQUES EMPLOYED. A number of techniques are used in making surveys. Some of the more common ones are (1) interviews; (2) questionnaires, (3) comparisons, (4) rating scales and score cards, (5) various forms of statistical techniques; (6) judgment of experts or successful practitioners; and (7) library research.

*Interviews and questionnaires* Interview technique is well discussed in *How to Interview* by Bingham and Moore, both experienced in applied psychology [4] The questionnaire technique has been analyzed at length by Leonard V. Koos and others.[5] In spite of its limitations it is widely used in surveys The reliability of questionnaires may be increased by (1) proper timing; (2) careful wording; (3) restrictions to factual questions; (4) objective questions; (5) a limited number of questions; (6) good arrangement; (7) legibility (perhaps by means of printed forms), and (8) careful selection of respondents.

*Comparisons.* The device of making comparisons is frequently used in surveys. School districts may be compared as to such items as instructional costs, supervisory and ad-

[3] Procurable through the American Vocational Association, Inc, 1010 Vermont Avenue, Washington, D C Fifteen cents for ten, $1 05 per hundred, or $8 25 per thousand

[4] Walter V Bingham and Bruce V Moore, *How to Interview,* Third Revision, Harper and Brothers, New York, 1941

[5] Leonard V Koos, *The Questionnaire in Education: A Critique and Manual,* The Macmillan Co, New York, 1928.

ministrative costs, allowances for instructional supplies, and salaries paid to teachers Other comparisons may involve the experience, professional training, and tenure of teachers Comparisons may be concerned with the use of the school plant—how much of it is used, how many shifts are employed for each twenty-four hours, and how the trainee load compares.

It cannot be emphasized too much that only comparable things should be compared It is obviously unfair to expect the school program in small, financially poor districts to be as diversified, as well taught, and as effectively presented as is possible in districts having ample funds and superior teachers. So far as possible, comparisons should be made statistically and scientifically rather than by resorting to adjectives and subjective judgments

*Rating scales and score cards.* The reliability of ratings in survey studies may be increased through the use of suitable rating scales—for example, those used for rating school shops or the quality of instruction Score cards, such as those developed by Strayer and Englehardt for rating school buildings, are known to be helpful.[6]

In judging the quality of work done by students, rating scales and objective measurements with suitable instruments, such as micrometers and special gauges, may be used

*Statistical techniques.* The term statistical techniques is relatively broad. It overlaps to some other extent other techniques mentioned, since statistics are used in some of them. In some instances statistical procedures serve as good substitutes for experimental methods as well as aids to them

Various forms of averages may be computed. Measures of central tendency may be calculated and shown graphically. Measures of variability can be computed and coefficients of reliability or of correlation figured.

Closely related to statistical technique but probably deserving of separate mention are tabular and graphic techniques Bar graphs, spot graphs, circle graphs, and pictorial graphs are popular. Many forms of organization charts,

[6] George D. Strayer and N L Englehardt, *Score Card for City School Buildings*, Teachers College, Columbia University, New York, 1920, see also *Score Card for Junior High School Buildings*, 1931

time series charts, flow charts, operation charts, and the like are also useful.[7]

*Judgment of experts.* To determine what the schools should teach, the judgment of experts or successful practitioners in the occupation is believed worthy of serious consideration. In the absence of more reliable data such judgment may constitute the best information available. The pooled judgment of experts is used extensively in surveys.

*Library technique* Under this heading may be included research work in libraries, as well as the examination of related studies in which the findings of industries, employers, workers, and others are recorded The data may be of historical value or of importance in determining such developments as population trends, occupational changes, and emerging demands.

## *FOR DISCUSSION*

1. Mention six or more conditions or problems that may be studied to advantage through surveys.
2. Enumerate the advantages of using to make surveys (*a*) local persons, (*b*) persons not residing in the community
3. How may an inexperienced person prepare himself for planning and making a survey?
4. Mention in proper sequence the steps that need to be taken in planning a vocational survey in your field of major interest.
5. Explain the director's functions
6. Illustrate your concept of "working through proper administrative channels"
7. How may effective sponsorship be secured?
8. How would you go about the task of getting good advisory service?
9. Make a list of the things you would bring before (*a*) the entire survey staff, (*b*) a departmental survey staff
10. What would you include under format?
11. Suggest how survey reports may be made fairly and impartially.
12. How can a survey report be made constructive?
13. Indicate how a survey report should be checked
14. What are your views about releases relating to a survey?
15. State how record forms can be made practical
16. Illustrate tactful ways of securing survey information from employers or unions.
17. Suggest how comparisons may be made to advantage
18. How much time would you take to explain a contemplated survey and to secure the cooperation of a business or industrial executive? Explain

[7] Willard C Brinton, *Graphic Presentation,* Brinton Associates, New York, 1939, 512 pp

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## CHAPTER 15

# *Vocational Guidance and Adjustment Services*

The guidance of youth and of adults has a very direct relationship to individual welfare, family well-being, and national strength and progress. The extensive literature in the field of both educational and vocational guidance shows that many persons consider such guidance of prime social importance An increasing number of schools are including in their curriculums systematic instruction in occupational opportunities. They are also employing more trained and certified counselors and coordinators so that guidance services will improve in quality as well as in the number of persons served.

Shortages of man power, oversupply of workers in times of depression, unforeseen technological changes, modifications in consumer demands, and changing foreign relations are but a few of the factors that make vocational guidance an essential and challenging service.

VOCATIONAL GUIDANCE DEFINED. The National Vocational Guidance Association has formulated the following concise but comprehensive definition· "Vocational guidance is the process of assisting the individual to choose an occupation, prepare for it, enter upon and progress in it "[1]

This definition has been considered somewhat narrow in view of the fact that vocational guidance must be supplied to many whose choice of an occupation must be postponed, is subject to many vicissitudes, and is dependent upon a great deal of intermediate training Nearly 70 per cent of all occupations are of the unskilled or single-job type, for which both choice and preparation are expressions too elaborate to describe the process of entering upon them Frequently voca-

[1] *Occupations, the Vocational Guidance Magazine*, Vol XV, May, 1937, pp 772-8

tional guidance can help the individual to choose only a field of occupations rather than a specific job. Moreover, many steps in the guidance program must take place before the actual step of choosing an occupation.

The following definition, which appears to encompass this concept of a vocational guidance program, was formulated by the United States Office of Education. "the process of acquainting the individual with various ways in which he may discover, and use, his natural endowment, in addition to special training available from any source, so that he may live, and make a living, to the best advantages to himself and to society "[2]

Beginning of Vocational Guidance. The vocational guidance movement in the United States, as we now understand it, goes back to 1907, when a bureau for giving vocational advice to young men was opened at the Civil Service House, Boston, by Frank Parsons. Two years later a vocational bureau was organized. Its objectives were to secure information on different occupations, to collect industrial statistics, and to ascertain educational opportunities As a means of accomplishing its aims, the bureau interested business men, educators, and social workers in vocational guidance. The Boston School Committee cooperated by appointing a committee on vocational guidance to work with the vocational bureau A number of occupational information bulletins, such as *The Machinist, Banking,* and *The Grocer,* were published by the bureau.

Three other Boston associations, namely, the Boston Home and School Association, the Girls' Trade School Association, and the Women's Municipal League, were also active in vocational guidance The Girls' Trade School League also published occupational monographs.[3] Although Massachusetts pioneered in vocational guidance, it should not be overlooked that a nation-wide interest in guidance developed at about the same time.

[2] J W. Studebaker, "The Occupational Information and Guidance Service A Report of Progress," *Occupations,* Vol XVII, No 7, April, 1939, p 587

[3] Paul Monroe, *A Cyclopedia of Education,* The Macmillan Company, Vol 5, pp. 740-1, 1913

THE NEED FOR SYSTEMATIC VOCATIONAL GUIDANCE. It soon became evident that vocational guidance would never be reasonably effective as long as it was given on an unorganized, haphazard basis. Many investigations, among them the more recent studies of unemployed youth conducted by the American Youth Commission of the American Council on Education and the Regents' Inquiry in the state of New York, show conclusively that vocational guidance must be organized systematically and should be a required function of schools. In this connection the state of New York deserves credit for having passed, as far back as 1935, a state law making it compulsory for boards of education in cities of 100,000 population or more to employ a full-time vocational counselor

In view of the great array of vocations and the limited opportunities most youth have of getting work experiences and opportunities to study occupations before they must make up their minds what vocation they are to enter, the need for guidance is evident Rapid changes in occupations, the introduction of new materials, and changing standards add to the difficulties of occupational adjustment The passage of legislation denying persons under sixteen or eighteen years of age employment in certain desirable occupations makes it difficult for young persons to get exploratory experiences that are helpful in determining vocational interests, aptitudes, and abilities.

Heavy financial losses are suffered by employers through labor turnover which may often be reduced considerably by better vocational guidance and vocational education. However, the loss does not end there. Obviously the worker also loses more than is apparent, and in the final analysis the consumer pays the bill.

The high labor turnover in many occupations may reflect unwise selection on the part of not only the employees but also the employer. In the case of the worker unwise selection may be traced to a variety of factors. Some individuals have not received even the most rudimentary sort of guidance in how to seek and apply for a job. Many look upon wages as the chief goal. Counselors know that occupations should

be chosen by individuals after they have had an opportunity to consider their aptitudes, abilities, and interests, on the one hand, and the opportunities both for training and for employment, on the other Service to society should be held up as a key factor. The so-called white collar complex, always difficult to deal with, may often be modified by giving the student a realistic picture of actual opportunities, particularly in the localities in which he expects to live

Vocational guidance seeks to conserve, to develop, and to use for the best interests of society our greatest resource —the potentialities of men and women. The greater the demand for man power, the greater the need for intelligent, wise, socially oriented, realistic guidance

THE NATIONAL VOCATIONAL GUIDANCE ASSOCIATION

In the United States there are many fine organizations that are deeply interested in guidance Some are federal, others state, and still others local in plan of organization. Some are public, others semi-public, and a third group is privately sponsored

Since the early work of Frank Parsons and other pioneers the National Vocational Guidance Association has been the professional association that has devoted its energies to the promotion of better guidance in the United States.

The organization of the National Vocational Guidance Association was carried to completion during a series of meetings held at Grand Rapids, Michigan, on October 21-24 inclusive, 1913 These meetings were held in connection with the third national conference, previous ones having been held in Boston in 1910 and in New York City in 1912.

The late Dr Frank M. Leavitt, then of the University of Chicago, and later Associate Superintendent of the Pittsburgh, Pennsylvania, schools, was chairman of the organization committee and was elected president of the N V.G A. for the year 1914. As Dr. Leavitt and his committee saw the situation, the demand for guidance appeared to come from the following three sources. (1) the *economic* demand, centering around the need for more efficiently

chosen workers; (2) the *educational* demand that our schools enlarge their functions so as to include guidance and placement; and (3) the *social* demand "for the very preservation of society itself."[4]

Currently the N V G A has sixty-nine branches located in thirty-four states, and others in Canada, Hawaii, Puerto Rico, and the District of Columbia The membership is more than three thousand.

Within the organization are sections, such as those concerned with individual analysis, occupational research, and preparation for guidance service. There are also divisions, such as the Division of Rural Guidance Numerous committees function in special fields of service, such as for colleges, out-of-school, secondary school, and special groups. Other committees deal with such administrative and policy matters as constitution and organization and cooperation with labor and industry.

The annual dues include subscription to the magazine *Occupations*, the official organ of the Association. It is published monthly, October to May

OCCUPATIONAL INFORMATION AND GUIDANCE SERVICE OF THE UNITED STATES OFFICE OF EDUCATION.[5] The United States Office of Education has long been actively interested in vocational guidance. Perhaps this interest was heightened by relatively recent events In 1938 the United States Commissioner of Education announced the inauguration of a program of occupational information and guidance to be carried out by the Office of Education in cooperation with the states and territories. There was created in the Office of Education an Occupational Information and Guidance Service. Responsibility for the administration of the policies established for this service has been delegated to the Assistant United States Commissioner for Vocational Education The chief of the service is

[4] United States Bureau of Education, *Vocational Guidance*, Bulletin No. 14, 1914 (papers presented at the organization of the Vocational Guidance Association, Grand Rapids, Michigan, October 21-24, 1913), pp 5-7

[5] United States Office of Education, *Occupational Information and Guidance*, Vocational Division Bulletin No. 204, Appendix A, pp 169-74.

assisted by a professionally trained and experienced staff. Together they have already made significant contributions of special interest to their field.[6]

Circular Letter 2108, addressed to Chief State School Officers by Dr J. C Wright under the date of November 1, 1938, stated that the Commissioner of Education had authorized the use of federal teacher-training funds, available under the Smith-Hughes and George-Deen Acts, for partial maintenance of state occupational information and guidance services.[7] In order that these funds may be used as designated, the state board for vocational education submits a plan or an amendment to the present approved plan describing the proposed program and setting forth the duties and qualifications of supervisors, together with a statement of the way in which federal funds are to be expended for supervision. If the proposed plan meets the requirements, it will be approved

A comprehensive program of occupational information and guidance as seen by Jager includes: (1) occupational information; (2) personal inventory; (3) counseling; (4) exploration of training opportunities; (5) placement; (6) follow-up [8]

STATE VOCATIONAL GUIDANCE PROGRAMS. In one or two instances state guidance programs originated before the creation of the Occupational Information and Guidance Service in the United States Office of Education. As of January, 1944, however, twenty-eight states were using federal funds as described above to maintain state services of occupational information and guidance, and six states had established similar services which are wholly state financed.

The typical plan involves the employment of a state supervisor of occupational information and guidance This official, with such staff as the state makes available, serves the state

[6] United States Office of Education, *Occupational Information and Guidance Series*, Vocational Division, Nos 1, 2, 3, 4, 5

[7] *Ibid*, Appendix B, p 174

[8] Harry A. Jager, "A National Occupational Information and Guidance Service," *A V A Journal and News Bulletin*, Vol XIV, September, 1939, pp. 153-8.

in much the same way that the Occupational Information and Guidance Service operates at the federal level. Among the services are promoting suitable legislation, serving as a clearing house for information in the field, cooperating with school districts in the establishment and development of community programs of guidance, carrying on essential studies and research, and making the results available for local use.

Other activities include the development of procedures in making occupational surveys and keeping before educators the basic, over-all facts revealed by the federal census and by other studies showing occupational trends in the state and the nation.

City-Wide Guidance Programs. There is much variation in the way vocational guidance programs are organized and operated at the local level. In some cities each high school has an independent program. In other places the junior high schools have one organization and the senior high schools another. A still different variation is to have programs in the vocational schools or departments separate from those for students in nonvocational classes.

In general, there appears to be agreement that it is best to have a unified, central guidance service for a school district or community Much may be gained by cooperation between all individuals and groups interested in various phases of guidance. The interrelationships of one service to others are brought out to advantage by viewing the over-all picture. Furthermore, progress is made by cooperative group thinking in which persons exchange ideas and refine practices through constructive suggestions received from a variety of sources.

An Effective Adjustment Service Some time ago there was established the Adjustment Service in the city of New York. Figure 5 is a chart showing the organization of this service. It is reproduced here because the service is suggestive of what the community adjustment institutes of the future may be like Perhaps relatively few will be as

complete in their provisions However, it is clear that the services represented are highly desirable, and each community should be urged to provide them, preferably with state aid, in so far as it is possible to do so

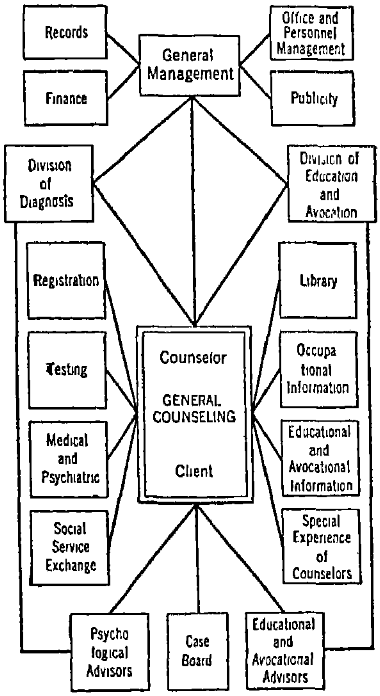



Fig. 5. Functional chart showing organization of the Adjustment Service, New York City This service was made possible by a grant made by the Carnegie Corporation of New York to the Emergency Unemployment Relief Committee and by other aid Source *The Adjustment Service*, p 4 Courtesy, American Association for Adult Education

COUNTY PLANS OF GUIDANCE A well-organized state program of vocational guidance will make maximum use of county superintendents of schools They and members of their staffs come in direct contact with many schools that can benefit through their interest and leadership. Recent

trends in curriculum revision and in the wider introduction of practical arts and vocational education are contemporary developments that make vocational guidance an essential service for county superintendents of schools.

America is committed to the sound principle that every able-bodied person should work. Effective, socially useful work is perhaps our surest way of furthering individual growth, family welfare, and national security. Leading county superintendents of schools realize that it is exceedingly difficult for young people to make wise occupational choices from some 500 major groups of occupations and to select a lifework from an array of approximately 25,000 payroll jobs that are listed in the federal census.

GUIDANCE PROBLEMS IN RURAL SCHOOLS.[9] Approximately 50 per cent of the 23,000 high schools in the United States each enroll fewer than 125 pupils, and 75 per cent each enroll 250 pupils or fewer. In other words, 3 out of 4 high schools are small schools, employing from 3 to 10 teachers who give instruction at the high school level. In the main, these schools serve rural youth, are less well financed, and have less experienced administrative and instructional staffs than are to be found in the larger centers. While numerically large, the smaller schools to which reference has been made enroll less than one-fourth of the pupils attending high schools in the United States.

But these schools are in special need of effective vocational guidance services. Perhaps the best approach to better service lies through central county guidance organizations. Vocationally trained administrators and teachers, such as county advisors and instructors of agriculture, home economics, and industrial arts, may contribute much that will make guidance programs in rural areas successful. One reason is that they are usually in close touch with employment needs and know the labor requirements of the region and, perhaps to an appreciable extent, of the state and nation. Then, too, having had work experience as well

[9] Paul W. Chapman, "The Vocational Guidance of Rural Youth," from address at A.V.A. Convention, St. Louis, December 3, 1938.

as professional training as teachers and counselors, they can handle better than others certain aspects of vocational guidance

Although vocational counselors in rural schools should present the facts of rural life and work fairly, it is not their job to try to lure as many of their pupils as possible into farming or into any other selected occupation Their chief task is to guide each individual to select work that is socially essential and for which he has aptitude and interest As stated elsewhere, social usefulness is of prime importance. Income, working conditions, opportunities for growth and development, and other factors must also be studied carefully both before an occupational choice is made and after one is employed. Many jobs that adolescents are able to get are merely steppingstones to very different jobs at higher levels For example, clerking in stores, carrying newspapers, hoeing potatoes, and washing dishes are jobs which may lead to more difficult and more socially desirable employment

In spite of the relative abundance of literature in the field of guidance, one of the problems in rural and small town schools is that of securing an adequate supply of authoritative information about occupations and a satisfactory professional library in the area of guidance for teachers and counselors. The United States Office of Education has issued a series of pamphlets dealing with available source material, such as *200 Sources of Pamphlet Materials on Occupations* by Pedro T. Orata and Franklin R. Zeran and *Guidance Bibliography, Occupations* by Walter J. Greenleaf [10]

VOCATIONAL GUIDANCE FOR GIRLS AND WOMEN. The current need for women to replace and supplement men in war production and other essential industries calls attention to the critical need for understanding vocational counsel for girls and women.

Fortunately the Office of Education has made available

[10] Misc No 2536 and Misc 2150, respectively

a meritorious study bearing directly upon this problem[11] The authors have arranged alphabetically an extensive, selected series of references and related information classified under seven headings, all directly related to vocational guidance for girls and women. Included among other materials are information about occupations in which women workers predominate, descriptions of occupations prepared especially for women and girls, references giving suggestions to women and girls planning their vocational lives, and training facilities Other references deal with surveys, women's status in employment, information for special groups, and descriptions of curriculums and training needs.

Foremen and others who previously supervised only men, find women and girls a different problem It is claimed that women are inclined to "take everything more personally than men." If the foreman appears to be more interested in one girl employee than another, jealousy, which will decrease production and increase costs, may easily develop.

Women usually have two groups of interests, one centered in the home, the other on the job. Some persons believe that when these interests conflict, most women and girls will give up their jobs in favor of their family, whereas men are more inclined to stay with their jobs. It should be recognized therefore that most women look upon homemaking as their greatest opportunity to be of service. This viewpoint is advantageous for both themselves and their country

It is necessary, moreover, to face the fact that in the main a girl who gets a job in industry usually gets married in approximately five years or less. Consequently employers and parents too are less inclined to urge girls to enter training programs for skilled occupations. Approximately 70 per cent of the girls who enter employment go into teaching, into commercial occupations, or into nursing.

Foremen and others dealing with women and girls must be more tactful and less personal than they would be with men.

[11] Office of Education, *Vocational Guidance for Girls and Women*, references and related information by Mrs Marguerite W Zapoleon and Miss Louise Moore, Vocational Division Bulletin No. 214, 1941, 162 pp

It has become evident that in wartime the patriotic appeal is the strongest for getting women and girls to hold jobs. More encouragement would help Women are conscientious employees, but they know their limitations in work usually considered a man's and need to be encouraged more than do men to get best results on such jobs.

Men may help women to make job adjustments by making the training more realistic. It is well to have the training as true to actual working conditions as possible. Otherwise the transition from the training class to the job may be too difficult

In all probability the postwar world will be more of a woman's world than ever before. Women have demonstrated their ability in the armed forces, in industry, and elsewhere Although according to some studies they possess but 58 per cent of masculine strength and 68 per cent of masculine stamina, their dexterity, loyalty, perseverance, and devotion to the things that are most worth while in life entitle them to a fuller share of participation in the work and the councils of the nation.

TYPES OF JOBS THAT WOMEN CAN DO Women have proved their ability to carry on successfully a large number of jobs formerly performed by men The list is far too long to be set forth here In general, women excel in finger dexterity. Jobs requiring sensitiveness of touch or speed of hand operation rather than great physical strength or force are well done by women workers.

Women usually have greater patience than men on jobs calling for minute detail and endless repetition Women are doing excellent work in light spot electric and gas welding, in light assembling, as in radio and electrical equipment, in the inspection of manufactured parts, and in lighter forms of sheet metal work, including coppersmithing They are also employed to advantage in ship loft work and as tracers and draftsmen.

Women are well suited to instrument assembly, maintenance and repair work They can also do lens grinding successfully. Grinding, piercing, and polishing watch jewels

are other tasks for which they are well suited Power sewing machine operation has always been a woman's job In time of war it has many applications—for example, making and repairing parachutes Various forms of stitching are used in aircraft fabric repair. Women have proved their ability to use precision measuring instruments with high degrees of accuracy and speed.

SECURING OCCUPATIONAL INFORMATION There are many sources of information about occupations Among them are (1) books; (2) pamphlet and periodical literature, (3) inspection trips, (4) visual-sensory aids, including photographs, slides, and motion pictures, (5) school instruction on a practical arts and on a vocational basis; (6) actual job experience as a worker; and (7) surveys and follow-up studies.

Information about occupations is given to advantage through systematic courses specially planned for the purpose Some states have issued lesson outlines for seventh-, eighth-, and ninth-grade courses in occupations Many commercial films are highly educational They portray interestingly and effectively manufacturing processes and working conditions in industries Visits to places of employment are also desirable.

It is usually well to combine a number of methods of approach For example, students may be assigned readings, they may discuss what should be looked for, they may be shown movies, and finally they may visit places of employment to round out and complete their knowledge These activities may be followed by evaluative discussion and perhaps by written reports.

Too much emphasis cannot be placed upon the importance of each school knowing the occupational opportunities in its own locality In the larger urban areas most students expect to live and work in that region Even in rural districts half of them will not migrate and will therefore be dependent upon occupations available locally Because of these facts local occupational surveys should be frequent, thorough, and comprehensive They may be undertaken under various community auspices, including those of the

students themselves under the direction of their teachers. A comprehensive bulletin on this subject is *Community Occupational Surveys*[12]

Many books on occupations give brief descriptions of a variety of more desirable occupations Some of them combine generalized information about families of jobs with detailed information about a small selected number of occupations

A number of the books designed for students at the junior high school level stress methods of occupational analysis and self-analysis. Others concentrate upon how to apply for work or how to discover occupational fitness, aptitudes, and interests[13] Many of them, such as *Aeronautical Occupations for Boys* and *Business Opportunities for Women*, cover specialized fields

GOVERNMENT GUIDANCE PUBLICATIONS The Superintendent of Documents, Government Printing Office, Washington, D C, issues free of charge lists of government publications of many sorts A nominal charge is made for many of the publications To illustrate, the United States Office of Education issues a series of nineteen career monographs at five cents each The Vocational Division publications of the United States Office of Education are listed in Misc 229, which is revised from time to time. It may be secured from the Office of Education. Many of the bulletins deal with job analyses of specified occupations It should be said in fairness to private publishing houses and authors that some of the best guidance material is privately published

JOB DESCRIPTIONS. The United States Employment Service, Bureau of Placement, War Manpower Commission, has issued an occupational dictionary of unusual merit The

[12] Marguerite W Zapoleon, *Community Occupational Surveys*, Vocational Division Bulletin No 223, United States Government Printing Office, Washington, 1942, 25 cents

[13] Walter J Greenleaf, *Guidance Bibliography*, Misc. 2150, United States Office of Education, Reissued, 1940, also *Bibliographies on Occupational Information and Guidance*, Misc 2573, by Walter J Greenleaf and Marguerite W Zapoleon of the same office.

dictionary at present contains brief descriptions of 17,452 separate jobs. Since many of them go by more than one title, the book defines close to 30,000 titles. Over 54,000 job analyses were used as a basis for the titles Instead of the ten major groups of occupations used in the federal census, the dictionary groups all occupations under the following headings, which in turn are subdivided into more than 550 smaller groups.

- Professional and managerial occupations
  - Professional occupations
  - Semi-professional occupations.
  - Managerial and official occupations
- Clerical and sales occupations
  - Clerical and kindred occupations.
  - Sales and kindred occupations.
- Service occupations
  - Domestic service occupations
  - Personal service occupations
  - Protective service occupations
  - Building service workers and porters
- Agricultural, fishery, forestry, and kindred occupations
  - Agricultural, horticultural, and kindred occupations
  - Fishing occupations
  - Forestry (except logging) and hunting and trapping occupations.
- Skilled occupations
- Semi-skilled occupations
- Unskilled occupations.

Job descriptions of a more extensive nature are contained in such monographs as Ernest L. Bowman's *Jobs in the Machine Shop* [14] Another example is Dorothea de Schweinitz' description of forty-five retail store occupations, published under the title of *Occupations for Retail Stores* [15]

A publication entitled *Occupational Briefs, Series Number Two,* has been issued by the Los Angeles Board of Education and the California Bureau of Vocational Rehabilitation. It illustrates one of the more extensive series of brief occupational descriptions.[16] *Occupational Abstracts* of more than sixty different occupations have been issued by

[14] "American Job Series," Publication No 27, Science Research Associates, Chicago

[15] International Text Book Company, Scranton, Pennsylvania.

[16] Revised February, 1938, 251 pp

Occupational Index, Inc., of New York University. Up-to-date information about occupations, especially about the man power available and needed in specified industries and occupations, is issued regularly by the Occupational Outlook Service in the United States Department of Labor. The Woman's Bureau of the same department issues material relating to women workers. Information about occupational diseases, including their prevention, can be obtained through the United States Public Health Service or state health departments.

WAR PRODUCTION OCCUPATIONS. The War Manpower Commission has issued and revised from time to time a list of occupations for which vocational training may be given under federally aided programs of vocational education for war production workers when the need for such training has been established. The occupations are listed alphabetically and classified by titles and code numbers as given in the *Dictionary of Occupational Titles*, to which reference has been made. For further classification, job definitions are included in the manual.[17]

COUNSELING SERVICES. The effectiveness of guidance programs depends to a large measure upon an adequate supply of well-trained and experienced counselors. The relationship between counselee and counselor and the help the latter can furnish the former constitute the central core of guidance.

It has long been recognized that counselors need professional training for their service. Dr. F. G. Bonser, of Teachers College, Columbia University, advocated professional training for vocational counseling as early as 1913. He looked upon counseling as "fundamental, both from the standpoint of the individual seeking his place in the world's work, and of the social world for which his work is to be done." Among the qualifications that to Professor Bonser seemed most necessary for successful counseling were "information, experience, appropriate personality, and capacity for constructive research." He

[17] *War Production Occupations for Vocational Training*, United States Office of Education, Vocational Division, Revised, 1942.

classified the information needed under two headings, namely, of the vocational world and of people. "Tact, decision, and unbounded human sympathy" are traits that a counselor needs in large measure. He looked upon the vocational counselor as one who can do much to bridge the gap between the schools and occupational life [18]

Counseling should be made a regular service that is available not only to youths in schools but also to employed persons irrespective of age. A study made by Walter J Greenleaf and Royce E Brewster of the United States Office of Education in 1939, covering 23,000 public secondary schools, revealed that 2286 persons were devoting one-half or more of their time to counseling in only approximately 1300 of these 23,000 public secondary schools The remainder of the 21,700 schools presumably were served either by a counselor devoting less than half of his time to the purpose or in the majority of cases by no person having these specific duties [19]

While it is admitted that much counseling in the past has been incidental, brief, partial, and unscientific, there are many evidences that progress is being made toward higher types of service of this sort Let it suffice for present purposes to refer to but two sources of help to counselors: (1) recommendations of J C Wright, Assistant United States Commissioner for Vocational Education, and (2) excerpts from a training manual for interviewers in employment offices.

RECOMMENDATIONS OF DR J C WRIGHT The following excerpts, although contained in a leaflet entitled *Vocational Training Problems When the War Ends*, give a clear picture of the functions of a guidance program in general.[20]

The relation of occupational information and guidance to *Vocational Training Problems When the War Ends* depends on the definition of the

[18] United States Bureau of Education, Vocational Guidance Bulletin No 13, 1914, pp 37-42

[19] Walter J Greenleaf and Royce E Brewster, *Public High Schools Having Counselors,* Office of Education, Federal Security Agency, Misc 2267, Washington, D C, 1939

[20] J C. Wright, *Vocational Training Problems When the War Ends,* United States Office of Education, Federal Security Agency, Vocational Division Leaflet No 12, Washington, D C, 1943

program involved Briefly, it is concerned with the following procedures

1. Supplying an individual with an inventory of his abilities, aptitudes, and interests as they relate to his occupational availability
2. Supplying an individual with comprehensive and accurate information about occupations and the qualifications they call for, with the specific object of revealing those in which the qualifications are within the power of the individual at that time or after retraining
3. Counseling so that the individual may intelligently match the facts in Paragraphs 1 and 2 and make reasonable decisions as to further training or placement
4. Supplying supplementary services—such as assistance in entering upon his training, in placing himself in a job, in following his progress after placement, or in reviewing at any time his progress or objectives—as may be necessary to bring about his vocational adjustment to the greatest practicable extent

*How to Functionalize the Guidance Program.* The problem is how to bring about administrative provisions in individual schools to put into action the four procedures described in the preceding paragraphs. The writer is convinced that these procedures must also function in schools from which vocational schools and classes obtain their enrollment and in the new adult counseling provisions which must undoubtedly be set up in the post-war period In both cases individuals must make decisions which may lead them to vocational schools and classes, and these should be protected in the manner just described by adequate selection procedures

Administrators of schools must make specific, not general, provisions Some are A person or persons skilled in vocational guidance methods, time and space for such persons to carry on their duties in school hours and in suitable quarters, means for obtaining and presenting, not merely generally descriptive material about occupations, but also specific information about local work opportunities of all kinds and the qualifications demanded for such jobs, provisions for placement either directly or through liaison with established agencies, a continuous survey and evaluation of those leaving or finishing school as a check on the efficiency both of the guidance program and of the training of the school itself As administrators go about setting up these provisions the experience of the Vocational Education Division of the United States Office of Education in Washington and of 35 States providing State supervision in the vocational guidance field is available to solve many of the detailed problems involved.

TRAINING MANUAL FOR INTERVIEWERS. One of the states, cooperating with the United States Employment Service, has developed a training manual for interviewers [21]

[21] Division of Unemployment Compensation and Employee Service, Pennsylvania Department of Labor and Industry, 1938

The view is taken that in the Public Employment Service the interview should accomplish three objectives:

1. *Obtain information* concerning each applicant upon which selection and refusal will be based
2. *Provide information*, giving facts or counsel to aid the applicant in his search for suitable work.
3. *Establish a feeling of good will toward the Service.* It is of utmost importance that all representatives of the Division impress upon the applicant the fact that the Service exists to serve him impartially and efficiently.

The following personality traits are essential to a good interviewer poise and emotional stability, ability to command respect, interest in others, courtesy, and a good sense of humor. Among good principles in interviews may be mentioned:

1. Schedule interviews in proper order
2. Be prepared for interviews
3. Decide what you want to accomplish.
4. Keep in mind the limitations of the interview—use other devices, if better, for securing facts
5. Examine and discount your own prejudices
6. Gain and deserve the applicant's confidence
7. Make the applicant feel at ease and ready to talk
8. Keep control of the interview.
9. Practice taking the applicant's point of view.
10. Phrase your questions so they are easily understood
11. Avoid asking leading questions
12. Avoid arguments with applicant.
13. Avoid hurrying the interview
14. Be a good listener.
15. Avoid the role of a teacher
16. Record all data at once or at earliest opportunity.

RELATIONSHIP BETWEEN SCHOOL MARKS AND WAGES. A study was made of 1201 pupils who graduated from high schools in Indianapolis, Indiana, ten years prior to June, 1940. The boys who made A's in their high school work were earning an average of $38.72 a week; those who made B's were earning an average of $35 96 a week; and those who made C's were earning an average of $30 90 a week.

The earnings of girl graduates showed a similar trend Those who made A's averaged $27 34, those who made

B's averaged $21.43, and those who made C's averaged $17.36 a week.[22]

Guidance through Pre-Employment Training. It is generally conceded that there are distinct guidance values in exploratory experiences of many kinds. Since the exploratory experiences that form the core of practical arts education, such as general home economics, junior business practice, and industrial arts, are purposely selected from representative work in the world of employment, it stands to reason that such practical arts activities are or can be made to be exceedingly useful as means of vocational guidance.

The all-day vocational schools should not be regarded as exploratory experiences except in so far as students who may drop out before finishing their courses are concerned. The all-day vocational school should have been chosen by the student as the result of a guidance program of which he had the benefit before enrollment in a vocational course. Entering such a school represents a specific commitment to a vocational field rather than a try-out experience. A guidance program within such a school, however, should always be provided to take care of the inevitable misfits and cases of maladjustment, as well as for the further assistance of individuals interested in their own continuous growth and development within the areas in which the school provides instruction. Such a program will also, of course, include placement and follow-up procedures.

Various programs of vocational education of a part-time cooperative nature, such as the programs of diversified occupational training and of part-time cooperative training, contain the basic element, namely, actual working conditions which can be utilized for instruction that has outstanding guidance as well as vocational education values.

Homeroom Guidance. Programs of homeroom guidance have received a great deal of attention in the literature of the guidance movement. The latest thought, however, is somewhat critical of many of the ideas often advanced in programs of homeroom guidance. If individual counseling

[22] Reported in the *New York Times*, Sunday, February 16, 1941.

is involved, the homeroom is inappropriate because it provides no privacy and is hindered by other elements inconsistent with a good counseling situation. If instruction related to the guidance program is involved, the homeroom situation seems to be handicapped in most of the accepted criteria for good instruction. This statement applies even to the teaching of occupational information, which requires as careful organization and time provisions as any regular subject If the homeroom teacher is alleged to have superior opportunities for the observation of the traits of pupils, this claim will not stand examination in view of the small amount of time available and the large load imposed upon the homeroom teacher as compared, for instance, with the English teacher.

The homeroom appears to be most useful in carrying out various administrative details required by the guidance program, such as the filling out of questionnaires and the assignment of pupils to rooms and classes for the ensuing term. Homeroom periods also provide a time for so-called extra-curricular activities These activities are often used to point up and highlight or dramatize certain needs of pupils which may be revealed by counseling and by inventorying their characteristics and which cannot be easily incorporated into the regular courses of instruction. Such activities are really a supplementary form of instruction rather than guidance.

WAYS OF FINDING A JOB The task of finding full-time jobs is faced by two groups of individuals—those who are leaving school and about to enter occupational life and those who desire to change their jobs or are compelled to do so Unemployment is often forced upon innocent workers through conditions, such as changed consumer demands and increased efficiency of production, over which they have no control Inventions and other changes frequently result in divesting workers of the value of their hard-earned skills and related vocational knowledge

It is clearly within the province of the public schools to help both these groups as much as possible. Many persons seeking a job do not know how to apply for it effectively.

Let us first consider youth who are applying for their first job. Some very elementary things can be taught them to advantage Suggestions like the following can be made available in printed or mimeographed form so that they can study them

1. Dress appropriately, in general avoid flashy, sporty clothes
2 Cleanliness is essential Have clean face, hands, and clothing.
3 Remember that dirty fingernails, tobacco-stained fingers, and unpolished shoes have prevented many a person from securing a job
4 Avoid chewing gum when applying for a job.
5. Be polite
6 Show self-confidence but not "cockiness"
7. Sell your service Take the view that you have something to offer for the wages to be paid.
8 When meeting your prospective employer, stand unless asked to sit down Do not put your hat on his desk, and do not offer to shake hands unless the employer makes the first move to do so
9. Be truthful Avoid overstatements as well as understatements about yourself
10 If asked whether you can do an unfamiliar kind of work, it may be well to say, "This work is new to me, but I can learn it quickly, sir" Avoid saying, "I can do anything", this answer is obviously an exaggeration.

A few suggestions to older persons who need instruction in applying for a job are these.

1. Make a positive approach. Do not ask for a job on the plea that you need it Instead use the approach that a good salesman employs Make the prospective employer feel that you can give him superior service, that you can help him in his business now and in the future.

No respectable business house would send a salesman on the road asking for business because the firm needs it The approach that is most successful, as a rule, is to sell your service as a salesman sells his goods or service Therefore, instead of saying, "You don't happen to have a job around here for a machinist, do you?" you had better say, "You are looking for a first-class machinist, aren't you?" Even though you get a negative response, you can follow it up with whatever sales arguments you believe to be appropriate

2 In some occupations it is important to have a satisfactory kit of tools in order to get a job and to be able to use the tools in order to hold the job.

3 It is often advisable for a person looking for a job to be able to begin work at once—to be dressed appropriately or to have work clothing with him

4. Cleanliness of person and appropriateness of dress, a satisfactory haircut, and other details should not be overlooked

5. It takes much courage and stamina to apply for work repeatedly without success, but perseverance is worth while.

6 When about to become unemployed, let your friends know about it Go further, ask them to make suggestions as to how you might get a job Then act on their suggestions in so far as you can or believe them to be helpful

7. Keep yourself in circulation, keep your telephone as long as possible or at least arrange so that you can be called on one

8. In times of depression many persons have created new jobs for themselves by observing and offering to do work for others that obviously needs to be done.

9. The mere fact that an industry is laying off men does not prove that they will not find it profitable to employ you You may be able to help them overcome their difficulties

10 When persons are thrown out of work it is often wise for them to go to the public library and brush up on their trade or occupation This may be done in part by studying the current trade journals and by looking over the best recent books in their field of special interest The librarian may be able to make helpful suggestions regarding the occupational or technical literature available.[23]

PLACEMENT AND FOLLOW-UP ACTIVITIES. Some schools and school systems have rendered outstanding placement and follow-up service to those they have trained The girls' trade schools of the United States, as a group, have probably done as good a job at placement and follow-up as any. The Regents' Inquiry in New York and other studies show, however, that in the main this important function has not received the attention it deserves. Too many schools are like a manufacturer who produces an article and then does not follow up to see to what extent it meets the market demands

Placement is not only essential to the vocational guidance program but is also a vital means of keeping the schools abreast of current requirements To an increasing extent local, regional, and state coordinators are being used to serve as liaison between the schools and the world of occupational life. We need to look forward to extending and improving placement activities. Means and methods need to be devised that will result in a unified and coordinated service in which the schools and the public employment offices each have their appropriate part.

Follow-up activities, according to modern practice,

[23] See also Annie H Lockett, *How to Get a Job*, Cincinnati Employment Center, Cincinnati, Ohio, 1937 (mimeographed, includes good references)

involve acquiring a specific set of facts about every person who leaves school either by graduation or by dropping out. The follow-up reports have a number of values essential to the school.

One set of facts obtainable from the follow-up study will reveal the jobs which have been obtained, as well as data about wages, further training, promotion, and similar items The accumulation of these facts helps to give an occupational picture, both accurate and detailed, of the local community

The second set of facts is evaluative in nature A study of the returns from properly devised questions should reveal not only how well the guidance program itself has functioned, but also how well the courses of study and especially vocational courses have functioned in the after-school life of the student In fact, probably only through follow-up studies can this kind of data be secured.

The procedures of good follow-up practice have been described in a number of publications A brief but comprehensive outline of this kind is presented by Brewster and Zeran of the United States Office of Education in a publication entitled *Techniques of Follow-up Study of School Leavers.*[24]

## *FOR DISCUSSION*

1 Define vocational guidance and explain the term

2 Describe the beginnings of vocational guidance in the United States

3 Why is systematic vocational guidance needed?

4 What appeared to be the chief reason for demand for guidance when the National Vocational Guidance Association was formed?

5 Describe the Occupational Information and Guidance Service of the United States Office of Education.

6 Describe the state program of occupational information and guidance in a state of your own selection

7 Explain how the guidance program is organized in a progressive city school system with which you are familiar

8 Mention some of the problems in organizing and operating vocational guidance programs that are likely to arise in rural school districts

9 Discuss in considerable detail the topic, "Vocational guidance for girls and women"

10 Make a list and report upon the kinds of jobs that women can do—jobs formerly performed by men.

[24] Royce E Brewster and Franklin R Zeran, *Techniques of Follow-up Study of School Leavers*, Misc 3038, United States Office of Education, Federal Security Agency, Washington, February, 1943.

11 Suggest a number of sources of information regarding occupations.

12 Mention governmental sources of occupational information

13. Examine and report upon the dictionary of occupations developed by the United States Employment Service

14. What major groups of production occupations are of special value during the war effort?

15 Explain what is meant by counseling Contrast it with teaching

16. What are some of the more significant recommendations, as you see them, made by the United States Office of Education?

17 Mention several principles relating to the art of interviewing

18. Evaluate homeroom guidance

19 Make suggestions helpful to young persons seeking their first full-time job.

20 Assume that a mature person who is unemployed asks for suggestions that may help him find a job What should you do or say?

21. Report at length on the relations between the public schools and the United States Employment Service in a specific locality

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## CHAPTER 16

# *Accident Prevention and Safety Practices in School, in the Home, and in Employment*

EXTENT OF ACCIDENTS. It is difficult to visualize the vast extent of accidents and the great loss and untold suffering that result from them. Many national bodies, governmental and otherwise, are actively engaged in preventing accidents. State and municipal groups are likewise concerned with the problem. The schools also hold it a public duty to develop in youth attitudes, concepts, and habits that will reduce accidents.

One of the national groups directly concerned with reducing the number and the seriousness of all kinds of accidents is the National Safety Council, a nonprofit, cooperative association The Council works as an independent body as well as in fullest cooperation with other agencies and groups interested in similar objectives.

The Statistical Bureau of the National Safety Council reported that, in the year 1941, 104,500 persons died of accidents in the United States.[1] Of these, 40,000 were victims of motor vehicle accidents. Accidents occurring in homes resulted in 31,500 deaths. Work accidents were responsible for 18,000 killed Another 15,000 persons lost their lives in public, nonmotor accidents. The military deaths for the year were listed at 1800.[2]

In the same year 9,300,000 persons were injured through accidents, 350,000 of them permanently Motor vehicle injuries numbered approximately 1,450,000. Another 4,650,000 persons were injured in homes. Work injuries for the year totaled 1,600,000.

COST OF ACCIDENTS. The National Safety Council reported that the calculated accident cost totaled $4,000,-

[1] National Safety Council, *Accident Facts*, prepared by the Statistical Bureau of the Council, 20 N Wacker Drive, Chicago, 1942 Edition, 112 pp.

[2] This figure appears not to include deaths at Pearl Harbor, which were not made public until a later date

000,000 for 1941. "This includes wage loss, medical expense, the overhead cost of insurance, and property damage in motor vehicle accidents and in fire." The figure does not include indirect loss such as that caused by disrupted production nor does it measure human suffering and other losses of a personal nature.

In 1941 accidents in the United States alone resulted in a loss of 460,000,000 man-days of work. This, the Council reported, was the labor equivalent of 1,500,000 workers and might have produced "20 more battleships, and 100 more destroyers, and 9,000 more bombers, and 40,000 more tanks " No wonder that the National Safety Council says, "It is your duty as a patriotic American to protect yourself and others from accidents."[3]

Motor vehicle accidents and falls account for almost two-thirds of all accidental deaths. More motor vehicle deaths occurred on rural than on urban highways.

During the last twenty years the motor accidents have tended generally to increase, whereas the trend in other accidents has been downward [4]

In 1941 the Council report showed that only two diseases —heart disease and cancer—kill more males than die through accidents Among females five diseases take more lives than do accidents.[5]

*Table 6*

THE APPROXIMATE DISTRIBUTION OF OCCUPATIONAL DEATHS, COMPARED TO GAINFUL WORKERS, BY INDUSTRIES*

| | *Deaths* | *Workers* |
|---|---|---|
| All industries | 100% | 100% |
| Agriculture | 25 | 19 |
| Trade and service | 20 | 39 |
| Construction | 18 | 5 |
| Manufacturing | 14½ | 27 |
| Transportation and public utility | 13 | 8 |
| Mining, quarrying, oil and gas wells | 9½ | 2 |

* National Safety Council, *Accident Facts*, prepared by the Statistical Bureau of the Council, 20 N Wacker Drive, Chicago, 1942 Edition, p 13

Table 6 shows that agricultural occupations are more hazardous than manufacturing, that construction jobs are

[3] *Ibid.*, p. 2

[4] *Ibid.*, p 5.

[5] This ratio no doubt changes with the extent and nature of employment.

more dangerous than manufacturing or farming, and that work in mining, quarrying, and oil and gas wells is the most dangerous of the occupational groups compared.

INJURY RATES BY INDUSTRIES. On the basis of reports received from industrial establishments the National Safety Council has computed injury rates by industries as shown in Table 7.

*Table 7*

INJURY RATES BY INDUSTRIES*

| Frequency of Disabling Injuries per 1,000,000 Man-Hours | | Severity Days Lost per 1000 Man-Hours† | |
|---|---|---|---|
| Tobacco | 3.23 | Tobacco | .20 |
| Cement | 5.99 | Aeronautics | .30 |
| Steel | 7.02 | Printing and publicity | .35 |
| Glass | 7.37 | Glass | .50 |
| Aeronautics | 7.40 | Textile | .53 |
| Automobile | 7.49 | Rubber | .62 |
| Rubber | 8.10 | Automobile | .64 |
| Chemical | 9.48 | Machinery | .79 |
| Laundry | 9.79 | Tanning and leather | .82 |
| Printing and publicity | 9.87 | Sheet metal | .83 |
| Textile | 10.23 | Woodworking | 1.04 |
| Machinery | 10.66 | Laundry | 1.15 |
| Petroleum | 11.78 | Transit | 1.16 |
| Public utility | 12.70 | Food | 1.30 |
| Non-ferrous metals | 13.17 | Chemical | 1.30 |
| Sheet metal | 14.37 | Metal products | 1.30 |
| Transit | 14.99 | Clay products | 1.33 |
| All industries | 15.39 | Foundry | 1.33 |
| Meat packing | 15.20 | Meat packing | 1.42 |
| Tanning and leather | 15.88 | Petroleum | 1.44 |
| Food | 16.16 | All industries | 1.53 |
| Metal products | 16.61 | Marine | 1.61 |
| Paper and pulp | 17.37 | Non-ferrous metals | 1.63 |
| Quarry | 17.96 | Public utility | 1.66 |
| Foundry | 21.27 | Paper and pulp | 1.66 |
| Woodworking | 22.44 | Steel | 1.75 |
| Marine | 22.82 | Refrigeration | 1.92 |
| Construction | 27.11 | Cement | 2.22 |
| Clay products | 30.82 | Construction | 2.42 |
| Refrigeration | 37.59 | Quarry | 3.71 |
| Mining | 38.90 | Lumbering | 5.19 |
| Lumbering | 52.45 | Mining | 9.42 |

* National Safety Council, *Accident Facts*, prepared by the Statistical Bureau of the Council, 20 N Wacker Drive, Chicago, 1942 Edition, p 17

† One thousand man hours is approximately equal to a man's work for 6 months (estimated at 40 hours a week for 25 weeks)

CAUSES OF HIGHWAY ACCIDENTS. The United States Bureau of Public Roads in a report to Congress analyzed 892 highway accidents as shown in Table 8 Since an accident may have several contributing causes, the total number of occurrences exceeds the number of accidents.

*Table 8*

CAUSES OF HIGHWAY ACCIDENTS*

| *Accident Factor* | *Number of Occurrences* |
|---|---|
| Speed excessive for conditions | 636 |
| Pedestrian's condition | 417 |
| Driver's negligence | 361 |
| Poor visibility | 302 |
| Temporary hazards in roadway | 232 |
| Pedestrian's faulty action | 155 |
| Driver's condition | 152 |
| Faulty condition of motor vehicle | 52 |
| Faulty action of driver of vehicle other than motor car | 21 |
| Passenger's faulty action | 16 |
| Other factors | 2 |

* *Safety Digest*, published by the Automotive Safety Foundation, Tower Building, Washington, D C, 1940, p 2

The National Safety Council reported that unsafe speeds were a factor in two out of every five fatal traffic accidents. Improper driving, exclusive of speed violations, accounted for another two out of five fatal highway accidents

Three out of four pedestrians killed by motor vehicles either violated a traffic law or acted in an unsafe manner Jaywalking was the most frequently committed violation

Reports from state traffic authorities to the National Safety Council indicate that 20 per cent of fatal traffic accidents involve either a driver or a pedestrian who has been drinking

Physical defects and bodily impairments contribute somewhat to accidents. Fatigue, including falling asleep while driving, contributed to 6 per cent of fatal highway accidents Defective eyesight and hearing and other bodily defects resulted in only 1 per cent of the fatalities

On the basis of mileage, drivers under the age of 20 have the highest accident rates. "The rate decreases quite steadily to about the age of 50, and then increases sharply."[6]

[6] *Safety Digest*, published by the Automotive Safety Foundation, Tower Building, Washington, D C., 1940, pp 30-1

Causes of Industrial Accidents The data in Table 9, based on 1000 cases studied by the National Safety Council, show a breakdown of three groups of causes, namely, unsafe acts, mechanical causes, and personal causes.

*Table 9*

INDUSTRIAL ACCIDENT CAUSES*

| | |
|---|---|
| *Unsafe Acts* | *Per Cent* |
| Total cases | 100 |
| Overloading, poor arranging | 10 |
| Unnecessary exposure to danger | 27 |
| Unsafe equipment, improper use of equipment | 16 |
| Non-use, personal protective equipment | 15 |
| Working on moving or dangerous equipment | 6 |
| Improper starting or stopping | 5 |
| Operating at unsafe speeds | 7 |
| Making safety devices inoperative | 1 |
| No unsafe act | 13 |
| *Mechanical Causes* | |
| Total cases | 100 |
| Hazardous arrangement, procedure | 34 |
| Defective agencies | 18 |
| Unsafe dress or apparel | 15 |
| Improper illumination or ventilation | 2 |
| Improper guarding | 9 |
| No mechanical cause | 22 |
| *Personal Causes* | |
| Total cases | 100 |
| Improper attitude | 31 |
| Lack of knowledge or skill | 48 |
| Bodily defects | 3 |
| No personal cause | 18 |

* *Safety Digest*, published by the Automotive Safety Foundation, Tower Building, Washington D C, 1940, p 18

A special committee of the American Society of Safety Engineers revealed that on the basis of 1000 industrial accidents studied:

20 per cent of the accidents resulted from machine faults.
20 per cent of the accidents resulted from personal faults.
60 per cent of the accidents resulted from a combination of the two.[7]

[7] Reported by V. A Zimmer, in foreword to *Suggested Standards for Industrial Safeguards*, Special Bulletin No. 7, United States Department of Labor, Division of Labor Standards, Government Printing Office, Washington, 1942

National Safety Council studies of industrial accidents reveal that one-fourth of the serious injuries involve improper guarding, whereas only one-tenth of the less severe injuries are attributable to that factor.

CAUSES OF SCHOOL SHOP ACCIDENTS: HENIG'S FINDINGS. One of the early studies relating to accidents in vocational schools was conducted by Max S Henig, who made an analysis of the number of accidents and their causes The results are shown in Table 10.

*Table 10*

ANALYSIS OF SCHOOL SHOP ACCIDENTS IN THE ESSEX COUNTY, NEW JERSEY, VOCATIONAL SCHOOLS, BY DR MAX S HENIG

| Accident Factors | School Departments in Which Accidents Occurred | | | | | Total Number |
|---|---|---|---|---|---|---|
| | Auto Mechanics | Carpentry | Drafting | Electrical | Machine | |
| Hand tools | 17 | 33 | 0 | 14 | 8 | 72 |
| Machines | 0 | 20 | 0 | 3 | 13 | 36 |
| Handling materials | 14 | 8 | 0 | 2 | 7 | 31 |
| Scuffling, horseplay, etc. | 3 | 4 | 2 | 3 | 2 | 14 |
| Struck objects | 0 | 10 | 0 | 3 | 0 | 13 |
| Burns | 0 | 0 | 0 | 5 | 2 | 7 |
| Handling chips | 0 | 0 | 0 | 0 | 6 | 6 |
| Struck by material | 0 | 2 | 0 | 0 | 2 | 4 |
| Cranking motor | 4 | 0 | 0 | 0 | 0 | 4 |
| Falls | 0 | 2 | 0 | 0 | 0 | 2 |
| Miscellaneous | 9 | 2 | 3 | 2 | 3 | 19 |
| Totals | 47 | 81 | 5 | 32 | 43 | 208 |

CAUSES OF ACCIDENTS IN INDUSTRIAL ARTS SHOPS: JUDY'S STUDY.[8] A total of 726 accidents requiring medical

[8] Wayne M. Judy, *Vocational School Shops*, Bulletin No. 11, National Safety Council, Chicago; see also P. L. Cressman, *Safety Education in Industrial School Shops.*

treatment was studied by Wayne M. Judy. The accidents occurred in 249 industrial arts shops in the state of Iowa.

Of the 726 accidents 156 involved the use of power-driven machinery and 557 the use of hand tools The four power-driven machines on which the largest number of accidents occurred were lathes, grinders, universal saws, and jointers Among the hand tools, chisels, knives, hand-saws, planes, and hammers were most frequently involved. Pupil carelessness, disobedience of safety rules, and unnecessary haste were listed by Judy as the leading causes of accidents in industrial arts shops.

A STUDY OF ACCIDENTS IN INDUSTRIAL SCHOOL SHOPS · CRESSMAN'S FINDINGS. An extensive, state-wide study of school shop accidents was made by Dr. P L Cressman.[9] The study was based on 1041 reports of school shop accidents in 153 Pennsylvania school districts Supplementary information was obtained through visits to many of the shops, and teachers and administrators were interviewed concerning the accidents reported. As used in Dr. Cressman's study, accident injury means "every mishap that causes injury to the body or member of the body."

Dr. Cressman foresaw the need of continuous studies of school shop accidents and "a common system of reporting, tabulating, and evaluating accident data." His study revealed that many persons who make out accident reports confuse description of the accident with description of the injury. The chief causes of accidents in industrial school shops, as revealed through this study, are shown in Table 11

Other causes of accidents reported were adjusting guards while machine was in motion, dull tools, feeding stock too fast, failure to use guards, handling metal chips, inadequate light, improper speed of machine, and insufficient equipment Additional causes were lack of supervision, loose clothing, obsolete equipment, poor health, poor housekeeping, reaching in rear of saw to guide stock, slippery floors, and worry

The nature of the more common injuries sustained in

[9] P L. Cressman, *Safety Education in Industrial School Shops,* Bulletin 332, Department of Public Instruction, Harrisburg, Pa , 1938.

*Table 11*

CAUSES OF ACCIDENTS IN INDUSTRIAL SCHOOL SHOPS*

| *Cause* | *Number* |
|---|---|
| Improper position of body, hands, etc. | 244 |
| Failure to carry out instructions | 138 |
| Handling materials | 103 |
| Hasty work | 94 |
| Inattentiveness | 92 |
| Stock held insecurely | 64 |
| Misuse of tools or equipment | 62 |
| Horseplay | 40 |
| Carelessness | 23 |
| Defective tools or equipment | 20 |
| Struck by object | 17 |
| Falls | 8 |
| Inexperience | 8 |

* P L Cressman, *Safety Education in Industrial School Shops*, Bulletin 332, Department of Public Instruction, Harrisburg, Pa, 1938, p 32

industrial school shop accidents studied by Cressman are shown in Table 12

*Table 12*

NATURE OF THE INJURIES SUFFERED IN INDUSTRIAL SHOP ACCIDENTS*

| *Description* | *Number* | *Description* | *Number* |
|---|---|---|---|
| Cuts | | Burns | |
| Finger | 458 | Hands | 32 |
| Hand | 155 | Fingers | 18 |
| Thumb | 95 | Around eye | 12 |
| Arm | 25 | Arm | 7 |
| Face | 20 | Head | 2 |
| Head | 17 | Leg | 2 |
| Leg | 9 | Foot | 1 |
| Wrist | 8 | Total | 74 |
| Skin broken | 7 | | |
| Foot | 2 | Splinters | 21 |
| Total | 796 | Eye injuries | |
| | | Hit | 17 |
| Bruises | | Dirt in | 5 |
| Finger | 34 | Total | 22 |
| Hand | 12 | | |
| Arm | 8 | Body injuries | 9 |
| Foot | 8 | Dislocated finger | 1 |
| Head | 8 | | |
| Thumb | 7 | | |
| Leg | 5 | | |
| Total | 82 | | |

* P L Cressman, *Safety Education in Industrial School Shops*, Bulletin 332, Department of Public Instruction, Harrisburg, Pennsylvania, p. 34.

In 929 accidents out of 1041 it appears that the students injured were responsible for the accidents. In only 43 cases were other students reported to be responsible.

SAFETY IN OR ABOUT THE HOME. Many accident hazards can be eliminated or reduced through careful planning of the building site, the home, and its landscaping

The location of service drives, walks, steps, and other features should be planned so that accident hazards will be reduced Service drives and walks should be arranged so as to afford good visibility where they join streets or alleys. High shrubbery should not be placed where drives or walks meet streets or alleys. Where the ground slopes, the angle of slope should be moderate Sloping walks and drives can be provided with slip-resisting surfaces.

Surface water may be drained so that it will not run across sidewalks. Steps can be designed so that they are relatively safe. A broad tread with a relatively short riser contributes to safety. Good artificial lighting on outside steps and rails where needed also help to reduce accidents.

Fire hazards may be reduced in a number of ways. Fire-resisting construction is preferable Fire stops should be built into frame walls and partitions at all floors, in the basement, and at the roof line or upper plate Fire-resisting partitions, doors, ceilings, and floors are especially needed for the furnace room. All electric wiring and plumbing should meet building code requirements. Handrails on stairways, including basement and attic stairs, are distinctly helpful. Lighting throughout the house should be such as to eliminate shadows on steps or other places where accidents may occur. Electric switches should be placed where most convenient Three-way switches should be used on stairways; pilot lights should show whether the current is turned on in ironing board circuits

Bathtubs should be set so that they will drain properly but should be as level as possible In cold climates water supply pipes in outer walls should be avoided

All heating installations should meet code requirements. Chimneys and flues should be of ample size and approved construction. The chief causes of fatal home accidents are

falls, burns, poisons, firearms, suffocation, and poisonous gas.

The American Red Cross has issued *Injuries in the Home. How They Are Caused and How They Are Prevented.*[10] According to this study, home falls are caused most frequently on stairways and steps that are cluttered with objects, such as toys, clothing, and household utensils, and on those that are poorly lighted or in need of repair.

Burns and scalds are often caused by playing with matches or around bonfires Children often pull kettles and pans containing hot liquids from stoves and tables. Many fires are caused by using kerosene and gasoline to speed up fires.

Infants are sometimes victims of mechanical suffocation caused by becoming entangled in bedclothes Escaping illuminating and cooking gas claims the lives of many. Fumes from cleaning fluids in large quantities may be fatal Exhaust gases from automobiles are dangerous.

Poisoning is often caused by curiosity on the part of small children swallowing unknown substances Adults sometimes mistake a poison for a harmless drug. Poisonous snakes should be known. Antidotes to poisons should be kept on hand.

The accidental discharge of firearms causes many accidents. All firearms kept in homes should be unloaded. Those carrying firearms should be taught how to carry and care for them.

Fires in the home are caused frequently by the careless use of matches or cigarettes and by defective chimneys and flues. Other causes are improper use of stoves and furnaces, careless handling of hot ashes, defective electrical appliances, and the use of combustible cleaning fluids, and candles.

Promoting Safety on the Farm. It appears that people living in the open country have to bear more than their proportionate share of accidents. Rural highways are a factor. Falls kill many persons on farms. Climbing children are likely to get hurt. Farm machinery has its hazards. The farmer often works in many kinds of materials with many

[10] American Red Cross, "*Injuries in the Home. How They Are Caused and How They Are Prevented,*" Washington, D. C, 15 pp

kinds of tools. Some of the hazardous ones are sickle, scythe, axe, brush hook, corn knife and other knives, chisel, saw, hammer, sledge, hatchet, pick, pitchfork, and soldering coppers

During a ten-year period the Kansas State Board of Health found that fatal farm accidents in Kansas were due to the following causes: machinery, 28 per cent; animals, 20 per cent; vehicular, 11 per cent; falls, 10 per cent; excessive heat, 9 per cent; lightning, 6 per cent, crushed by falling tree, 4 per cent, other, 12 per cent [11]

The bull is always hazardous. Stallions, sows with new litters of pigs, and other farm animals contribute to accidents. Lightning frequently strikes Farm fires take a huge toll each year. Ticks from animals carry spotted fever to human beings Rats and mice spread contagion Farmers must sometimes use poisons for spraying fruit or other crops. Water supply and sanitary provisions are not always good.

These factors and others call for constructive safety instruction in the home and through schools The fact that medical aid is not as accessible in the open country as in urban centers is another reason why children from the country should be taught how to avoid accidents and how to deal with them when they occur. This is in part a problem in general education but also in vocational education

ACCIDENTS IN AVIATION [12] The current passenger death rate on scheduled domestic airlines is only 10 per cent of the rate ten years ago. Landing accidents make up more than 40 per cent of the accidents. Take-offs account for 25 per cent more. Forced landings result in 6 per cent of the accidents and collisions in 10 per cent.

Analysis of scheduled transport accidents revealed that approximately 42 per cent involve personal errors, 23 per cent failure of power plant or plane, and 14 per cent adverse weather conditions

In private flying personal errors were involved in 63 per cent of the cases, engine and plane in 22 per cent, and weather in 5 per cent.

[11] National Safety Council, *Accident Facts*, 1942 Edition, p. 56
[12] *Ibid*, pp. 50-1

Under the Civil Pilot Training program during the period 1939-41 a total of 7,400,000 miles were flown per fatal accident by C P T pilots.

DEFINITE INSTRUCTION IN SAFETY NEEDED. The schools are an agency that has already proved through extended experience the values of definite instruction focused upon safety. In the primary grades the schools stress such topics as safety in the streets and on highways, safety against fire, safety at school, safety at home, and safety in play and recreation

In the intermediate grades much the same topics are dealt with but on a more advanced level. In the junior high school years greater differentiation of curriculums and of forms of safety education is undertaken For example, special safety instruction is given by the physical education department, by teachers of home economics, and by instructors of industrial arts and trade and industrial education.

In the senior high schools and in part-time and evening classes for adults safety education is carried forward on a still more advanced basis Occupational hazards that may be met in the world of work are studied with care. Emphasis is placed upon the development of safety attitudes and concepts that underlie particular practices The effectiveness of safety instruction is measured in terms of performance Factual knowledge concerning safety is essential, but to be worth much that knowledge must be translated into safety habits.

Safety education should be looked upon as instruction that is measurable in behavior which reduces the number and the severity of accidents.

SCHOOL SHOP SAFETY COMMITTEE. Whether school shops and laboratories are large or small, safety organizations can be developed for them. Accident prevention calls for cooperation on the part of all persons The teacher alone cannot bring about best results; he needs the assistance of all students. This cooperation can be achieved in part through school shop safety organization.

A safety committee can be appointed It may function on a school, department, or shop basis, depending upon cir-

cumstances Meetings may be scheduled monthly and upon call of the chairman, the central safety committee, with the counsel of a faculty person, may exercise general supervision of safety work, gather and display or otherwise disseminate safety information, plan safety programs, exhibits, demonstrations, and lectures or discussions, and perform other functions in line with its responsibility

The size of the committee, its term of service, and its specific functions can be worked out to best advantage on the basis of local conditions

THE SAFETY ENGINEER An appreciable number of school shops use some form of organization in which students participate in management. In such organizations there is often provision for a safety engineer. The Michigan State Board of Control for Vocational Education finds that in schools the safety engineer is usually selected for a period of one week during which he gives full time to his work. The State Board lists eighty-eight duties of a safety engineer "for study and discussion in all shop classes" The duties in the following list were selected and adapted from those mentioned in the Michigan study [13]

See that finger rings and wrist watches are removed
See that all students wear aprons or other approved clothing.
See that neckties are removed or tucked in
See that long hair is completely covered when working around machinery
Report "horse play" to the instructor
Be on the lookout for dangerous work habits or careless workers
Report any infraction of the safety rules and regulations.
Explain safety rules and regulations to new students
Allow no one to use improper tools.
Watch for improper handling of equipment.
Prevent misuse of tools and equipment
Make a daily inspection report.
Report all accidents to instructor, and make out accident reports.
Investigate all accidents to determine cause.
See that all cuts and other injuries are properly dressed
Check first-aid supplies and keep them in proper condition
Post safety posters and other safety material on bulletin board.
See that guards are in place on all machines

[13] Michigan, the State Board of Control for Vocational Education, *Training for Safety*, Bulletin 279, 1942, pp 18-23

See that machine operators turn off machines before they leave them
Prevent unauthorized persons from operating machines
See that machines are not oiled or cleaned while in motion
Check the fire extinguishers
See that tools and scrap are kept off the floor
See that oily rags and waste are placed in covered metal containers
See that goggles of approved type are worn where required
Inspect chisels, hammers, and punches for mushrooming
See that hammers, files, mallets, and vises have handles in good order

MINIMUM SAFETY REGULATIONS FOR WOMEN WORKERS The following are minimum safety standards for women workers that state directors of vocational education have been requested to establish [14]

*Dress.* Wear slacks with blouse or jacket, or one-piece coveralls. There should be no loose sleeves or belts, wide trouser legs, rolled-up cuffs, or loose pockets to catch in moving machinery Sweaters are forbidden Blouses should be conservative in color and tailored in style.

*Shoes* Shoes should be low-heeled, with closed toes, and substantial soles

*Hair* Hair must be "completely covered" when working around moving machinery, for full protection from dirt as well as danger, it should be covered at all times A cap is preferable to a bandanna or hair net.

*Jewelry* No jewelry may be worn This includes the wrist watch

*Goggles* Approved goggles must be worn when there is danger of splashing liquid or flying particles. Approved goggles or eyeshields should be worn when grinding or welding For full protection, they should be worn also for drilling, soldering, riveting, painting, dipping, etc

*Gloves.* Gloves must be worn for welding. They may be worn when handling sharp-edged sticks, scrap, or quantities of rough lumber

CAUTION Gloves may be an additional hazard if worn at the wrong time.

*Respirators.* Respirators must be worn when there is danger from dust or vapors due to grinding or painting operations

Trainees are to be cautioned not to make any change in operation or set-up of a machine unless the power has been turned off, and not to remove a safeguard from its proper position on a machine

The suggested safety regulations provide that when women are being trained for specific plants, the safety regulations of such plants should be adopted for such workers while they are in training

TRAINED FIRST-AID OR NONE. The experience of large as well as small industrial concerns indicates that first-aid treatment, given by trained persons, has reduced infected

[14] The outcome of a study made by the United States Office of Education, and as requested by L S. Hawkins, Director of Vocational Training for War Production Workers, *Education for Victory*, July 15, 1942, p 9

injuries by as much as 50 per cent Prompt and intelligent first-aid has saved many lives, and much suffering. It should be clear, however, that first-aid means emergency treatment, such as should be given to injured persons before competent medical aid can reach them. First-aid is not to replace the doctor but to help the injured in ways that are known to be correct until the doctor can attend the case.

First-aid cabinets of approved type should be kept in all school shops, laboratories, and gymnasiums, or in adjacent offices. The cabinets should be in charge of trained persons who will take proper care of them Experience has shown that unless this precaution is observed first-aid cabinets may become unsanitary, unsafe, and dangerous Students should not be encouraged to take care of their own injuries unless no one else is available who is competent to render the service required.

It is desirable to have all students get suitable training in first-aid through the Red Cross or through other qualified persons or organizations. It is likewise desirable to have the students organized so that they will be able to meet emergencies in school, in the home, and in the community

First-aid teams are just as useful in the school shop and in industry as are first-aid teams developed by the Boy Scouts of America, the Girl Scouts, and the Campfire Girls in the fields and forests First-aid instruction and training given under school auspices form the groundwork for more advanced training that later becomes necessary in occupational, home, and community life

PROCEDURE IN CASE OF SERIOUS SCHOOL ACCIDENT. The general procedure in case of serious accident, which should be modified to suit the requirements of each specific case, is the following:

1 Administer first-aid as directed by the instructor or other qualified person.
2 While this is being done, notify the principal's office [15]
3 Have the principal's office call the hospital

[15] The principal's office is usually not called for minor scratches, which may be dealt with by the instructor or school nurse Before the first accident takes place the teacher should inform himself of the policy of the school in regard to treatment and procedure

4. Either arrange to transport the injured person to the hospital or have the principal's office call an ambulance
5. If the injured person is taken to the hospital in a private car, have the principal or a teacher accompany him there
6. Notify the parents or guardians by telephone or in person
7. In the event that the parents wish to arrange for medical attention elsewhere, let them do so
8. Call the director of vocational education or the superintendent of schools by telephone, giving the essential facts
9. See that all tools, materials, or machinery are left untouched until the director's or the superintendent's office can make an inspection
10. Make out a written report on the regular accident report form used in such cases in the school district
11. Use the accident for class conference purpose to determine the cause and the prevention of repetition.

RECORDING SCHOOL ACCIDENTS In *Safety Education in Industrial School Shops* Dr P L Cressman has made several suggestions that appear to the writer to be worthy of wide support.[16] He indicates that whereas each school district could set up its own plan for keeping accident records, it would doubtless be more satisfactory to use a state-wide uniform system

In order to provide "an honest basis of comparison," he suggests computing both the *frequency rate* and the *severity rate*. These terms, he points out, are interpreted in industrial accident computations in the following manner

Frequency rate = Lost-time accidents per million man-hours worked

Severity rate = Number of days lost per thousand man-hours worked

For reporting school accidents, Cressman recommends: (1) that the frequency rate equal the number of accidents per million student-hours exposed, and (2) that the severity rate equal the number of hours lost per thousand student-hours exposed The days lost could be multiplied by the number of hours in a school day so that lost time would be expressed on an hourly basis

L. G. Stier is of the opinion that preliminary reports

[16] P L Cressman, *Safety Education in Industrial School Shops,* Bulletin 332, Commonwealth of Pennsylvania, Harrisburg, Pennsylvania, 1938, p. 79.

should be made of every school shop accident, "no matter how minor in character," because minor injuries may become serious through infection, and each such accident needs to be studied with a view to remedying the situation.[17]

He would supplement the preliminary report through a "complete investigation" made as soon as practicable and at least within 24 hours after the accident occurred. The investigation should result in a complete history of the case. A sketch showing the position of the injured student and of all students near him should be made a part of the record. In some instances a photograph may be advisable.

Stier suggests furthermore that the case be discussed and analyzed by the teacher and students to determine possible causes, losses, responsibility, and the prevention of recurrence. He suggests the accident report form on page 355, which is based on industrial report forms adapted for school use.

INADVISABILITY OF TEACHER'S LEAVING SHOP. It is well to have it understood that it is not proper for a shop teacher to leave the shop while his class is in operation. Even though the class is well trained and is certain to carry on in a normal manner whether or not the instructor is present, if an accident occurs it can scarcely be claimed that due care and adequate supervision were exercised if the instructor was absent.

Any variation from this practice should have the approval of the superintendent of schools, preferably in writing. Any superior officer issuing an order in conflict with the policy mentioned must assume responsibility. In the event that it is absolutely necessary for the instructor to leave the shop while the class is in session, he should get another teacher to take his place. If that cannot be done, the power should be shut off and students assigned to study activities in the shop under the shop foreman, or elsewhere, as in a study hall, under another teacher.

Since not all superior officers may realize the hazards

[17] Metropolitan Life Insurance Company, *Industrial Safety Education in Schools*, "Studying the Situation," by L. G. Stier (Principal, Frank Wiggins Trade School, Los Angeles), pp. 25-31.

## PRELIMINARY ACCIDENT REPORT*

*To be filled out immediately after an accident in the school shop*

School________________________ Date__________

| | |
|---|---|
| 1. Who was injured? | Name_______ Age___ Grade_____ Shop_____<br>Address______________ Telephone_____ |
| 2. What was the nature and extent of injury? (Describe fully) | Nature of accident __________________<br>__________________________<br>Nature of injury ____________________<br>__________________________ |
| 3. Who gave medical treatment? | First aid in school _______ By whom _______<br>__________________________<br>Physician_________ Address ________<br>Hospital__________ Address ________ |
| 4. On what day and at what time did the accident occur? | Date________ Hour_____ A.M. ____ P.M. _____ |
| 5. Where did the accident occur? | Exact place in shop where accident occurred______<br>__________________________ |
| 6. Who saw the accident or was near the injured when the accident occurred? | Name Age Address Ph.<br>N<br>N |
| 7. What was the cause of the accident? (Describe fully) | Immediate cause ____________________<br>__________________________<br>__________________________<br>Unsafe practice ____________________<br>Unsafe conditions __________________<br>Unsafe equipment __________________<br>Other causes______________________<br>Contributory cause _________________ |
| 8. What was the injured student's statement regarding the accident? | __________________________<br>__________________________<br>__________________________<br>__________________________ |
| 9. What was the mental and physical condition of the injured prior to the accident? | __________________________<br>__________________________<br>__________________________<br>__________________________ |
| 10. What can be done to prevent recurrence of this or similar accidents? | __________________________<br>__________________________<br>__________________________<br>__________________________ |
| 11. When will these corrective steps be taken? | __________________________<br>__________________________<br>__________________________ |

Report prepared by

________________________

* Metropolitan Life Insurance Company, *Industrial Safety Education in Schools*, "Studying the Situation," by I. G. Stier (Principal, Frank Wiggins Trade School, Los Angeles), pp. 27-8.

involved in calling a shop teacher away from the shop while it is in operation, the instructor is advised to point out the risk and ask his superior to assume responsibility for any accident that may occur while the teacher is away Where vocational students are employed on a cooperative or other part-time basis, they should be under constant supervision of foremen or experienced workers who should be responsible for their safety.

FIRE PREVENTION. Fire may serve as man's enemy as well as his useful servant The annual loss of life and property from fire is far higher than it should be in America. The schools are doing much to teach youth how to reduce the loss. Other agencies such as the scouts and the forestry service also stress fire prevention Since the fire hazards in school shops and laboratories are often greater than those in the classroom and since there are good opportunities for developing not only useful knowledge but also desirable safety habits relating to fire prevention in the shops and laboratories, it appears wise to stress fire prevention in them

Some of the more common hazards include open flames, the use of flammable spirits and oils, heated metals, forges, welding outfits, heat-treating furnaces, melting furnaces, live wires, smoking, the improper use of matches, and spontaneous combustion.

Fire prevention may be studied as a class project Students may be asked to report upon assigned topics Representatives of local fire companies may give demonstrations and lead discussions Most vocational teachers are well qualified to present the subject adequately as it relates to their vocation. Visual aids are helpful

SPONTANEOUS COMBUSTION. Reports of fire marshals show that spontaneous combustion is a prominent cause of fires Chemically speaking, combustion is oxidation Very rapid oxidation results in burning Combustion may be caused by conditions outside the object or within it. In the latter case it is called "spontaneous combustion."

Under certain conditions three groups of materials in common use may be subject to spontaneous combustion.

They are hay, coal, and drying oils. Linseed oil is a good example of a drying oil. Tung oil and japan oil are others.

Clover and alfalfa hay appear to be more liable to spontaneous combustion than other varieties, probably because the heavy stems do not dry as fast as the leaves. The three known factors in spontaneous combustion in hay are the presence of moisture, enough bulk to retain the heat generated, and sufficient oxygen The best preventive is properly curing the hay before it is stored and frequent checking in case of doubt In the event that hay is discovered having a dangerously high temperature, air should not be allowed to get at it, as the hay may burst into open flame

In school shops and home workshops spontaneous combustion from drying oils is a hazard. Students need to be watched carefully to make sure that they put into practice the regulation that oily waste should be disposed of in metal, self-closing containers.

Perhaps many persons are incredulous about the hazards of spontaneous combustion because they have seen oily rags lying around that did not catch fire. One reason for this is that oils differ in rate of oxidation and hence in hazard from spontaneous combustion

As groups, the vegetable oils are most hazardous, the animal oils less so, and the mineral oils least dangerous. Since it may not be possible to tell how dangerous a given oil is, it is best to use safe practices with all.

The chief elements in supporting spontaneous combustion appear to be ability of the oil to take oxygen from the air, the presence of enough air to support combustion (but not so much as to prevent it), and combustible material, such as rags, shavings, paper, or wood.

SAFETY SUGGESTIONS RELATING TO MACHINERY. The following suggestions relating to the use of power-driven machinery have been prepared by the Division of Labor Standards of the United States Department of Labor [18]

1. Stop machine or other dangerous operations while listening to instructions.

[18] United States Department of Labor, Division of Labor Standards, *The Worker's Safety and National Defense*, Special Bulletin No 2, 1940, pp 6-7

2. Before cleaning, adjusting, or oiling a machine, make sure that the power is off.

3. Never reach over moving cutters, rolls, or other dangerous machine parts

4. Always remove chuck wrenches from chucks immediately after they have been used.

5 Stand out of direct line with rapidly moving or revolving machine parts from which objects may fly Do not stand in line with materials being fed to circular saws or jointers

6 Always use a push stick when feeding short or narrow work past saws or knives Keep fingers away from moving machine parts

7. When operating any machine, do not lean over the work so that your hair or clothing may be caught in any moving part

8 Do not start any machine unless safeguards are in place and working properly Machine guards may be removed only to make necessary adjustments and repairs, and must be replaced *before* the machine is again put into operation If guards become broken or inoperative, the machine should be shut down until it can again be operated in a fully guarded condition.

9. Never attempt to stop a machine by grabbing the belt or by using any part of the body as a brake.

10 When replacing the belt, stop the machine and adjust belt on the driver pulley first

11 When shifting a belt, use belt shifter or a small metal or wooden rod If you must shift by hand, always use the palm with the thumb and fingers extended

12 Metal belt fasteners should never be used on hand-shifted belts

13. Remove chips or materials from around moving machine parts with a brush or stick, never with the hand

14. Keep loose materials away from machinery Do not use rags or waste around moving machinery parts.

15. Machines should be stopped before attempting to pick up tools or other objects lying near or in the path of traveling parts

16. Always turn off the power on a machine before attempting to remove stuck or jammed pieces of material

PRONENESS TO ACCIDENTS It is a matter of common observation, substantiated by research, that individuals vary in proneness to accidents.[19] An investigation from this point of view was made by Manoil on 45,000 accidents, 800 of which were fatal. The causes, in per cents, were classified as follows· psychical, 28; psychophysical, 25, physiological, 6; physical, 22, fortuitous, 11; and other, 8

Teachers and counselors can reduce accidents by being

[19] Adolf M Manoil, "Vocational Guidance in Prevention of Occupational Accidents," *Occupations*, Vol XXI, No. 5, January, 1943, pp 381-3.

on the lookout for students who appear to them to have a high rate of proneness to accidents Special cautions and perhaps more supervision need to be given such persons. When shop teachers see evidences of high susceptibility to accidents in a student, that fact should be made known to the counselor It may also be advisable to check with parents and others to see if they have noticed a like tendency. In some cases suitable safety instruction may be able to remedy the difficulty Individuals with emotional, mental, or physical handicaps may present special problems in accident prevention

DEVELOPMENT OF SAFETY HABITS A JOINT RESPONSIBILITY Pupils normally have a limited amount of knowledge about safety requirements before they enter the first grade In each succeeding year there should be noted definite progress in more complete understanding and in the strengthening of habits of safety. The home and other agencies, as well as the schools, have definite parts to perform.

While the board of education and school administrative officers are charged with providing safe housing, adequate lighting, proper ventilation, and mechanical safeguards, the teacher is expected to be on the alert with respect to accident hazards and to provide thorough instruction in safety first, especially as it relates to his field

Dr. Herbert J. Stack, Safety Supervisor, National Bureau of Casualty and Surety Underwriters, suggests that the following methods are among the most helpful in developing good safety habits and attitudes:[20]

1. *Showing the learner how to perform his work safely.* Show the learner the correct way to handle each tool or perform each operation Tell him, show him, check him
2. *Demonstrating how accidents are caused and prevented* The demonstrations should precede the work involving the hazards, so that accidents may be avoided
3. *Accident reporting* This should combine a study of accidents as well as reporting them in a systematic manner. Either or both may serve as a basis for correcting hazards.

[20] Herbert J Stack, "Can't We Improve Teaching Methods?" *National Safety News,* May, 1934, pp 52-3, 64

4 *Visual lessons* More extensive use of motion pictures, lantern slides, and posters is advocated as means of teaching safety

5 *Safety campaigns* Assembly meetings, home room talks, and other methods employed in industry should be used.

LIABILITY FOR ACCIDENTS TO STUDENTS.[21] From a legal point of view an accident is an unforeseen event which occurs without the will or intention of the person responsible for it Black's *Law Dictionary*[22] makes it clear that an accident is an event which occurs without fault or carelessness. From this definition it is apparent that the term is commonly used inappropriately.

In his study of the legal liability for the injury of children in public schools Dr. Arthur Clayton Poe has presented much evidence showing that an imposing array of court decisions have been rendered to the effect that "school districts may not be held responsible in damages to persons who are injured outside the field of contract."

A case coming before court may come within the province of the primary source of law, common law, which is based on judicial precedents and previous decisions of courts Our common law is based upon English law and further back upon Roman law.

A second primary source of law is statutory law, which refers to laws passed by any sovereign state. In the United States there are many differences in state laws.

A tort is a legal wrong committed upon the person or property of another. Under the law persons may be liable because of intentionally wrongful acts as well as for omissions to act rightly.

Our Workmen's Compensation Acts are examples of laws imposing liability for personal injury upon an employer regardless of who was responsible for the injury Liability, therefore, is not always limited to the person at fault.[23]

Public corporations are not responsible for torts when performing governmental functions but are liable for per-

[21] Arthur Clayton Poe, *School Liability for Injuries to Pupils,* Teachers College Contribution to Education, No 828, Bureau of Publications, Teachers College, Columbia University, New York, 1941

[22] Published by West Publishing Co., St Paul, Minnesota, Third Edition, 1933

[23] *Ibid*, pp 26, 27

sonal injuries arising out of the negligence to employees when carrying on private functions.

A special form of liability is known as the doctrine of attractive nuisance Under this doctrine a property owner may be held liable for knowingly leaving dangerous machinery, apparatus, or equipment where it attracts children who do not realize the dangers involved and get hurt.

EXPLANATION OF NEGLIGENCE. By negligence is meant the want of care which an ordinarily prudent and careful man would exercise under the circumstances. When applied to children, allowance is made for their immaturity. Thus contributory negligence may not be charged to children under four years in some states and under seven years in others [24] Greater caution must be exercised for the protection of those who are incapable of protecting themselves than for the protection of normal adults. The mere presence of machinery is looked upon as an implied invitation for children to investigate it and to try to operate it. The shop teacher has the responsibility of preventing accidents by not permitting students to investigate dangerous tools, machines, or equipment except under direct supervision of the teacher.

The presence of a teacher in the school shop or laboratory does not insure the safety of the student. The teacher owes it to his students to use care in trying to prevent injuries The teacher cannot be held for negligence unless he failed to use ordinary prudence and care in protecting his students

CONTRIBUTORY NEGLIGENCE In the event that an individual capable of intelligent action fails to act in a reasonably intelligent manner for his own protection, such negligence cancels any actionable negligence on the part of someone else The legal defense is contributory negligence. If it can be shown that the student has received definite instruction on the hazard involved, was cautioned against performing the act that led to the injury, and understood the instruction, it appears that contributory negligence was involved.

As a means of making sure that students understand safety laws and regulations, written tests are recommended

[24] *Ibid*, pp 43-51.

Errors made in the tests should be covered through follow-up discussion, in some cases involving demonstrations by the teacher.

CORPORAL PUNISHMENT A minor cannot maintain action against his parents for injuries caused by parental neglect or by corporal punishment School authorities and teachers stand in a parental relationship (*loco parentis*) to students However, this relationship varies somewhat from that existing between children and parents

Teachers have the right to administer reasonable punishment for misconduct. If the punishment is "immoderate, unreasonable, or in *malo animo* an action in tort may be found."[25]

In general, a teacher, principal, superintendent, or other employee of a school board is liable for his own negligence.[26] Suits have been brought jointly against the teacher and the board of education in which the board was held immune and the teacher liable. In other cases where boards of education were sued, the courts absolved the boards but indicated that the employees who caused the injury would have been liable personally Where a school employee is not acting in the course of his employment—that is, where he performs a function he was not employed to perform, such as a teacher attempting to take a splinter of metal out of a student's eye—he is personally liable for injury that may result from the act.

VARIATIONS IN STATUTORY LAWS. In all but four of the forty-eight states the conception obtains that school districts, as quasi-municipal corporations exercising governmental functions in the administration of public schools, are not liable in damages for personal injury to pupils except where statutes provide otherwise [27] However, all employees of boards of education, whether the employees are certificated or not, are liable in damages that result in personal injuries to pupils.

[25] *Ibid.*, p 50

[26] Harry N. Rosenfield, *Liability for School Accidents,* Harper & Brothers, New York, 1940, pp. 43-4

[27] *Ibid.*, p 52

In Iowa the supreme court has ruled that employees of school districts are not liable as individuals for negligence terminating in injury to pupils In the state of New York a decision was rendered that, whereas a board of education is not liable for the negligence of teachers, it is liable if the board fails to select a suitable teacher. In Oregon in 1907 the supreme court held that school districts were liable in damages for injuries to pupils Ten years later this ruling was amended in a manner that reversed the former action

In California the statutes of 1923 provided that school districts shall be liable for injuries to persons and property resulting from dangerous or defective condition of buildings, grounds, and property in all cases where such dangerous or defective conditions were known to exist and were not remedied in a reasonable time This provision was modified through later amendment. Currently claims for personal injury must be based upon negligent acts or failure to act on the part of the school districts or their representatives

Wisconsin has insured athletes against injury. The Massachusetts Vocational Association sponsors a coverage insurance plan which protects teachers from liability for pupil accidents for an amazingly low annual premium [28]

MORE ADEQUATE AID FOR THE INJURED. One of the important outcomes of Poe's study is his suggestion "that a study be made of the advantages of a system similar to that provided in the Workmen's Compensation Acts, whereby a pupil injured in school, regardless of negligence or fault, would be assured of proper medical attention and sufficient funds for rehabilitation"[29]

Workmen's compensation provisions at present apply to persons gainfully employed in specified occupations. Although pay is usually not involved in the case of pupils subject to accident hazards in the public schools, the principle of providing necessary medical aid and rehabilitation service for youth and adults in schools appears to be fundamentally sound and in line with what has already been done,

[28] *A V A. Journal and News Bulletin,* September, 1941.
[29] *Ibid*, p. 71.

though inadequately, for persons coming within the provisions of Workmen's Compensation legislation [30]

*FOR DISCUSSION*

1 Describe the extent of accidents occurring in the United States

2. Indicate the cost of accidents occurring during a one-year period

3 Explain injury rate and severity rate and cite examples

4 What are the chief causes of highway accidents?

5 Discuss industrial accidents from the following standpoints (*a*) unsafe acts, (*b*) mechanical causes, (*c*) personal causes

6 Name the chief causes of school shop accidents listed by Henig

7 Report at length upon Cressman's study of school shop accidents

8. How may a home be made as safe as possible against accidents?

9. What are the chief causes of accidents on farms?

10 How hazardous is aviation?

11. Illustrate sound, specific school safety instruction.

12. Explain how to organize and operate a school shop safety committee.

13 Enumerate the chief duties of a school shop safety engineer

14 State the principal safety regulations for women workers

15 Give the procedure a teacher should follow when a student is seriously hurt

16 Explain the advantages of school accident recording

17 Why should a teacher not be called out of the shop or laboratory while the class is at work?

18 Who is responsible for accidents to students when the teacher is not present?

19 How may spontaneous combustion be avoided in schools?

20 Cite six or more general practices to reduce accidents on machines.

21. Explain how to develop safety habits

22. What constitutes negligence?

23 Under what circumstances may contributory negligence be proved?

24 What is the basic law relating to corporal punishment?

25. Describe fully under what circumstances teachers are liable for injuries to pupils

*FOR FURTHER READING*

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[30] See also "Workmen's compensation legislation," Chapter 12 of this book

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*Safety Engineering,* a monthly publication devoted to accident prevention, health conservation, and fire control A division of M Best Company, Inc, 75 Fulton Street, New York

## *SOURCES OF ADDITIONAL MATERIAL*

The Aetna Casualty and Surety Company, Hartford, Conn.
American Red Cross
Metropolitan Life Insurance Company, New York
National Association of Mutual Insurance Companies, Indianapolis, Indiana.
National Bureau of Casualty and Surety Underwriters, 60 John Street, New York
National Safety Council, 20 N Wacker Drive, Chicago.
Travelers' Insurance Company, Hartford, Conn
United States Department of Agriculture, Washington, D C.
United States Department of Labor, Division of Labor Standards, Washington, D C
United States Office of Education, Vocational Division, Washington, D. C.

## CHAPTER 17

# *Vocational Education in Agriculture*

Agriculture is more than a vocation; it is a mode of life dear to millions of Americans. Many a person whose occupation makes it necessary to live in a congested city would give much to live and work in the open country.

Most of us are aware of the importance of agriculture We know also that the welfare of urban centers and of rural districts are definitely interdependent. Perhaps fewer of us are intimately acquainted with the great forward strides that have been made in agriculture through vocational education The purpose of this chapter is to present an overview of some of the objectives, principles, problems, and outcomes of vocational education in agriculture at the secondary school level in the United States

SCOPE OF RURAL POPULATION.[1] The total recorded population of the United States in 1940 was approximately 132,000,000 persons Of this number 30,546,781 persons, or 23.2 per cent, were classified as rural. The census classifies as rural those living in the open country and outside incorporated places and towns having a population of 2500 or more The rural farm population in 1940 was 30,216,188 persons. This number is 22 9 per cent of the total population. Figure 6 shows the total, the rural, and the farm population in the United States.

In 1940 slightly more than six million farms were recorded in the census The number decreased in the Great Plains, which were ravaged by dust and drought, and increased most near urban centers in which manufacturing and other industrial pursuits were carried on.

The number of farms in the United States from 1850 to

[1] Based on data from *Sixteenth Decennial Census of the United States*, United States Department of Commerce, Bureau of the Census, Vol. III, *General Report of Agriculture*, 1940

1940 is shown in Fig. 7. Changes from 1850 to 1940 in the quantities of all land in farms and croplands harvested are shown in Fig. 8

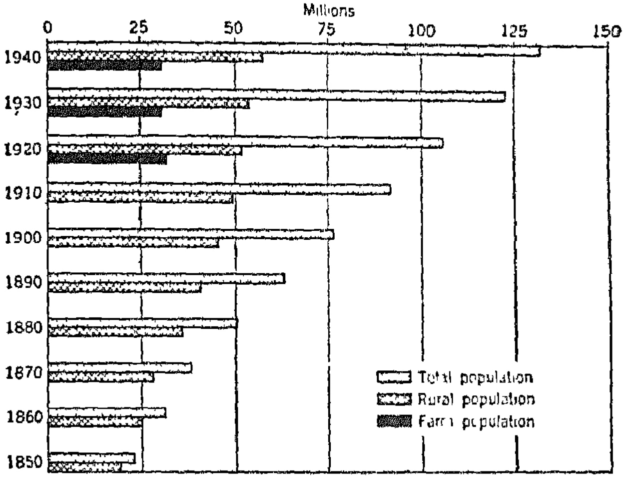



Fig 6 Total, rural, and farm population in the United States 1850-1940 Courtesy, United States Department of Commerce, Bureau of the Census, *General Report on Agriculture*, Vol III, Chapter I, p 1

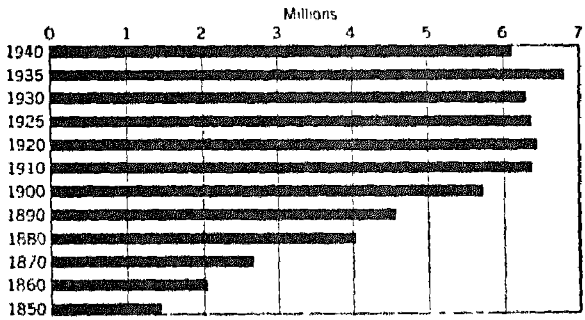



Fig. 7. Number of farms in the United States 1850-1940 Courtesy, United States Department of Commerce, Bureau of the Census, *General Report on Agriculture*, Vol III, Chapter I, p 3

THE VALUE OF FARM PROPERTIES.[2] In 1940 the average value per farm, based on all farms in the United States, was $6767. Of this amount $5518 represents the value of land

[2] *Sixteenth Decennial Census of the United States*, Vol. III, Chapter 1, p. 6

and buildings. The buildings have an average value of $1707 per farm. Implements and machinery are valued at $502, and livestock at $747 per farm. These figures give

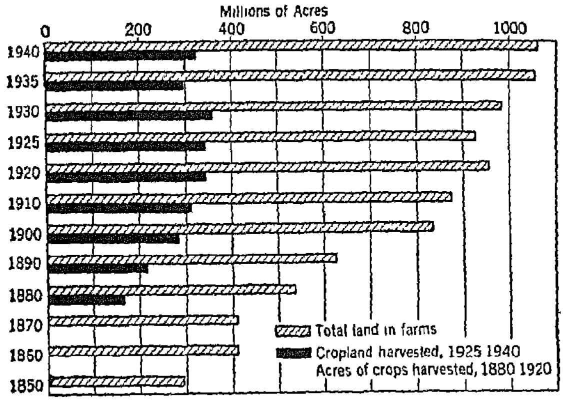



Fig. 8. All land in farms and cropland harvested for the United States' 1850-1940. Courtesy, United States Department of Commerce, Bureau of the Census, *General Report on Agriculture*, Vol. III, Chapter I, p. 4

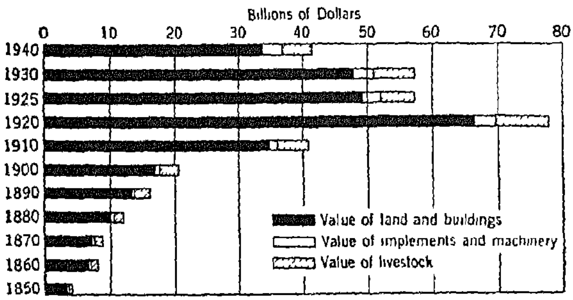



Fig 9. Value of specified classes of farm property in the United States 1850-1940. Courtesy, *Sixteenth Decennial Census of the United States*, Vol III, Chapter I, p 6

an approximate idea of the financial investment the average farmer has in his business and indicate one of the reasons why it is no easy matter for young men to establish themselves in farming on an owner basis Figure 9 shows the value of specified classes of farm property

The total value of farm property in the United States in

1940 exceeded $41,000,000,000. Farm lands alone were valued at over $23,000,000,000. Some farms are worth very little; others are valued at several thousand dollars an acre. Climate, fertility of soil, plantings, buildings, transportation facilities, utilities such as electric light and power, telephone facilities, nearness to good markets, labor supply, and educational, social, and recreational advantages are some of the factors that affect the value of farm lands. The average value of farm land and buildings per acre is shown in Fig. 10.

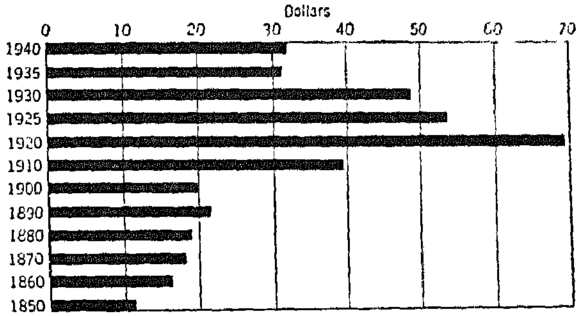



Fig 10. Average value of land and buildings, per acre, for the United States 1850-1940 Courtesy, *Sixteenth Decennial Census of the United States*, Vol. III, Chapter I, p 8

SIZE OF FARMS. The wide range in size of farms is indicated in Table 13, which shows all farms classified into ten size groups and the percentage of farms in each group.

*Table 13*

SIZE GROUPS OF FARMS AND PERCENTAGES IN EACH GROUP IN THE UNITED STATES, 1940[3]

| *Size Group* | *Percentage Distribution* | *Size Group* | *Percentage Distribution* |
|---|---|---|---|
| Under 3 acres | 0 6 | 100–174 | 21 0 |
| 3–9 | 7 7 | 175–259 | 8 5 |
| 10–19 | 9 2 | 260–499 | 7.5 |
| 20–49 | 20 0 | 500–999 | 2.7 |
| 50–99 | 21.2 | 1000 and over | 1.6 |

[3] *Sixteenth Decennial Census of the United States*, 1940, Vol. III, Chapter 2, adapted from Table 6, p 11

The average size of farms for the United States from 1850 to 1940 is shown graphically in Fig. 11 It will be noted that the average size of farms has varied relatively little since 1870.

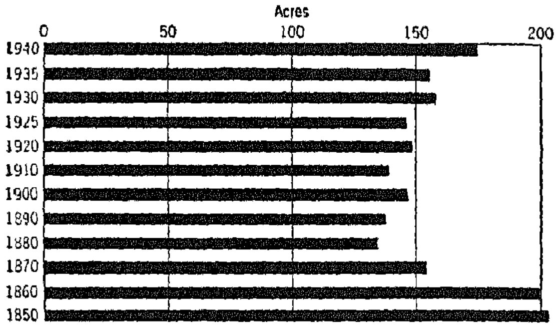



Fig 11 Average size of farms for the United States: 1850-1940 Courtesy, *Sixteenth Decennial Census of the United States*, 1940, Vol III, Chapter 2, p 2.

Types of Farms. The United States Census recognizes twelve types of farms The term type is here used to designate a kind of farming followed on a number of farms having considerable uniformity in the kinds of crops produced, the relative amount and proportion of crops grown or livestock handled, and the methods and practices of farming followed. The types are:

| | | |
|---|---|---|
| 1. General | 5. Fruit | 9 Stock ranch |
| 2. Cash-grain | 6 Truck | 10 Poultry |
| 3. Cotton | 7. Dairy | 11 Self-sufficing |
| 4. Crop specialty | 8. Animal specialty | 12 Abnormal |

Some of the terms used to describe the types are self-explanatory On a *general farm* not more than 40 per cent of the income is derived from any one of a variety of sources, such as (*a*) field crops, (*b*) animal production, and (*c*) fruit-growing. General farming varies according to location and climatic conditions.

On a *cash-grain* farm the income results largely from selling grain such as corn, wheat, oats, barley, flax, and rye.

*Cotton* is grown on about one out of every three farms

in the United States. Most of the cotton grown in the United States comes from ten southern states.[4]

The *crop specialty* farm concentrates upon some field crop such as sugar cane, sugar beets, hay, potatoes, beans, tobacco, or sweet potatoes.

The term *fruit farm* includes farms producing small as well as large fruits, ground fruits as well as those grown on trees Thus cranberries, strawberries, apples, peaches, pears, and cherries are but a few of the possible products. Nuts, such as filberts, walnuts, and pecans, and grapes of many kinds also come within this classification

*Truck farms* specialize in raising vegetables for sale. Many truck farms are located close to large cities; others are thousands of miles from where the products are sold

Farms that specialize in keeping dairy cattle are called *dairy farms* Milk, cream, butterfat, dairy cows, and calves are the chief products

*Animal specialty farms* specialize in one or more farm animals, such as hogs, beef cattle, sheep, or goats. When beef cattle are raised under farm conditions typical of farms in the East, the term animal specialty farm is used; in the West pasturage and rearing conditions are different. There beef cattle are raised on *stock ranches* and the range The principal difference between a stock ranch and an animal specialty farm lies in the ratio of the pasture or range land to the cropland. Of course, farm practices on a stock ranch differ from those on animal specialty farms.

*Poultry farms* produce chickens, ducks, geese, and turkeys. The birds, the eggs, or breeding stock may be sold.

On a *self-sufficing farm* the value of the farm products used by the occupants amounts to 50 per cent or more of the total value of all the products raised.

Under the name *abnormal farms* are grouped several unusual types of farms, such as those on institutional and country estates, part-time farms, and boarding and lodging farms. The classification also includes farms specializing in

[4] I W. Duggan and Paul W. Chapman, *Round the World With Cotton*, United States Department of Agriculture, Agricultural Adjustment Administration, Washington, 1941, p. 10

forest products, feed lots, and lots or farms used by livestock dealers.

FARM OPERATORS BY TENURE. The Bureau of the Census classifies farmers according to tenure. Four general classes are recognized.

*Full owners* are farm operators who own all the land which they operate. *Part owners* own part of the land they operate and rent and operate additional land. *Farm managers* operate farms or ranches for owners and are paid wages or salaries for the service they render. *Tenants* are farm operators who operate rented land only.

Tenant operators are subclassified into the following five groups: (1) *cash* tenants, who pay a cash rental; (2) *share-cash* tenants, who pay part of their rental in cash and the remainder in crops or livestock; (3) *share* tenants, who pay a share of either the livestock production, the crops, or both; (4) *sharecroppers,* tenants who are furnished all the work animals or their equivalent in tractor power; (5) other tenants whose rental agreement is unknown or who do not fall into the preceding subclasses.

In 1940 more than 60 per cent of the farms and ranches were operated by owners; 0 6 per cent by managers; and 38.7 per cent by tenants During the decade 1930-1940 increases in owner operators were shown in 29 out of 48 states.[5]

FARMS NOT HAVING COWS, POULTRY, PIGS, AND GARDENS. Many persons seem to think that practically all farms in the United States have cows, poultry, pigs, and vegetable gardens. An examination of the data presented in Table 14 shows the error of that view

In the United States in 1939, 23.5 per cent of all farms reporting had no milk cows; 15.2 per cent kept no poultry; 38.2 per cent raised no pigs or hogs; and 21 per cent had no gardens

In Arizona, California, Florida, and New Jersey less than half the farms kept milk cows In Arizona, California, Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Utah, and Vermont at least one farmer out

[5] *Sixteenth Decennial Census of the United States,* Vol III, Chapter III

## *Table 14*

## PERCENTAGES OF FARMS NOT HAVING MILK COWS, POULTRY, PIGS, AND VEGETABLE GARDENS IN 1939*

| *State* | *Milk Cows* | *Poultry* | *Pigs and Hogs* | *Household Vegetable Gardens* |
|---|---|---|---|---|
| United States | 23 5 | 15 2 | 38 2 | 21 0 |
| Alabama | 21 6 | 8 8 | 25 7 | 11 1 |
| Arizona | 62 8 | 55 7 | 86 0 | 72 2 |
| Arkansas | 25 8 | 10 4 | 31 4 | 11 7 |
| California | 61 0 | 43 5 | 84 9 | 73 3 |
| Colorado | 26 5 | 17 4 | 52 4 | 58 4 |
| Connecticut | 38 9 | 38 6 | 91 0 | 27 0 |
| Delaware | 38 1 | 19 8 | 46 2 | 17 4 |
| Florida | 56 7 | 31 4 | 48 4 | 40 9 |
| Georgia | 26 6 | 9 3 | 23 7 | 11 4 |
| Idaho | 18 3 | 21 9 | 42 5 | 29 1 |
| Illinois | 13 7 | 9 1 | 24 1 | 15 1 |
| Indiana | 16 8 | 13 7 | 27 3 | 11 6 |
| Iowa | 10 0 | 7 1 | 14 9 | 16 0 |
| Kansas | 17 3 | 13 1 | 46 5 | 48 6 |
| Kentucky | 19 0 | 12 1 | 35 3 | 11 1 |
| Louisiana | 30 9 | 11 0 | 27 3 | 15 2 |
| Maine | 28 6 | 47 8 | 72 5 | 16 5 |
| Maryland | 34 5 | 16 8 | 45 3 | 16 2 |
| Massachusetts | 49 4 | 47 1 | 89 5 | 36 5 |
| Michigan | 22 4 | 21 5 | 52 7 | 20 2 |
| Minnesota | 12 2 | 16 8 | 31 8 | 18 7 |
| Mississippi | 34 1 | 13 5 | 27 3 | 13 5 |
| Missouri | 15 8 | 9 5 | 28 3 | 13 4 |
| Montana | 29 5 | 22 2 | 60 8 | 42 6 |
| Nebraska | 13 7 | 9 9 | 31 7 | 46 4 |
| Nevada | 34 1 | 26 7 | 60 1 | 54 0 |
| New Hampshire | 34 6 | 49 2 | 82 4 | 21 3 |
| New Jersey | 51 2 | 26 9 | 79 1 | 32 9 |
| New Mexico | 46 6 | 31 3 | 61 6 | 54 5 |
| New York | 24 4 | 29 7 | 72 9 | 21 3 |
| North Carolina | 35 3 | 11 8 | 31 1 | 11 2 |
| North Dakota | 16 4 | 15 3 | 38 6 | 38 6 |
| Ohio | 20 0 | 15 6 | 38 2 | 13 9 |
| Oklahoma | 14 6 | 8 0 | 35 2 | 29 3 |
| Oregon | 24 6 | 24 2 | 63 4 | 30 4 |
| Pennsylvania | 25 8 | 16 9 | 51 1 | 12 8 |
| Rhode Island | 39 6 | 39 5 | 88 0 | 36 1 |
| South Carolina | 36 2 | 9 8 | 24 2 | 10 9 |
| South Dakota | 16 7 | 11 3 | 31 3 | 58 7 |
| Tennessee | 21 2 | 11 4 | 29 7 | 13 2 |
| Texas | 19 1 | 11 2 | 39 6 | 29 0 |
| Utah | 22 2 | 38 7 | 47 3 | 74 9 |
| Vermont | 18 9 | 44 7 | 78 5 | 17 2 |
| Virginia | 24 2 | 12 1 | 34 1 | 9 3 |
| Washington | 29 1 | 28 0 | 70 3 | 27 1 |
| West Virginia | 19 6 | 15 1 | 41 6 | 7 0 |
| Wisconsin | 10 4 | 17 5 | 41 1 | 14 3 |
| Wyoming | 21 0 | 17 8 | 56 0 | 45 1 |

* Reported in *The Land and the People on the Land*, United States Department of Agriculture, October, 1941

of three kept no poultry Fewer than one out of five farmers in Arizona, California, Connecticut, Massachusetts, New Hampshire, and Rhode Island raised pigs or hogs. In seven states, namely, Arizona, California, Colorado, Nevada, New Mexico, South Dakota, and Utah, less than half the farmers had vegetable gardens.

The agricultural extension service, along with the vocational agricultural departments operating in schools under the Smith-Hughes and the George-Deen Acts, is urging many farmers to diversify their farm enterprises. The United States Department of Agriculture has estimated that 2,500,000 farm families, or approximately 40 per cent, are subsisting on diets far below standards set by dietitians for good health. It is not to be assumed, however, that persons living on specialty farms necessarily do not have ample diets.

THE NEED FOR MANY ABILITIES IN FARMING. Farming calls for a wide variety of skills and a great deal of scientific knowledge, much more than appears to be commonly recognized by those not familiar with agriculture It also calls for business and managerial abilities of a high order. Anyone can keep farm animals, but only the farmer who is a good manager can make those animals keep him

Many farmers are faced with heavy debts and low incomes. The conditions which have resulted in this circumstance are of long standing and are mentioned in this connection because they have important bearing upon vocational education in agriculture. The United States Department of Agriculture has suggested that the following factors contributed to difficulties that first became evident in 1921 [6]

1 Wartime plowing up of grasslands and expansion of crops (30 million acres were plowed for the first time in the Great Plains alone at the time of the First World War)
2. Movement of European nations toward self-sufficiency in food as a war measure
3. Change of the United States from a debtor to a creditor position, without adequate revision of our trade policy, and the consequent loss of foreign markets.

[6] United States Department of Agriculture, *Achieving a Balanced Agriculture,* Revised, 1940, p 5

4. New farm competition in pioneer countries and colonies
5. Displacement of the horse by automotive power.
6. Rapid improvements in cultural methods and use of machinery.
7. Growth of monopoly and price fixing by corporations.

Changes in foreign relations, in economic conditions, and in consumer demands affect large numbers of farmers vitally. Neither vocational education in agriculture nor agricultural extension services can either prevent or solve agricultural maladjustments of an extensive economic character, but they can certainly do much to improve rural life and the farming vocations. Notable achievements of both services (vocational education in agriculture and agricultural extension) during the last three decades bear testimony to this fact.

OBJECTIVES OF VOCATIONAL EDUCATION IN AGRICULTURE.[7] As early as 1929 L. R. Humphreys, then vice-president for agriculture and later president of the American Vocational Association, appointed a committee to meet with the Agricultural Education Service of the Federal Board for Vocational Education. This report was published, May, 1931, by the Federal Board.

The committee, as more recently constituted, holds that there are at least four aims of education that relate fundamentally to present-day living:

1. To develop the individual as completely as possible.
2. To promote personal-group relationships with emphasis upon home and family life.
3. To make individuals and groups responsive to the needs of other individuals and groups, of communities, of governments, and of other desirable agencies.
4. To train present and prospective workers for proficiency in their respective fields.

The program of vocational education in agriculture is particularly concerned with the last of the preceding objectives. The major objectives of vocational agriculture, as

[7] United States Office of Education, Vocational Division, *Educational Objectives in Vocational Agriculture*, Monograph No. 21, 1940, 14 pp.; see also V. G. Martin, "Objectives in Vocational Education in Agriculture," *A.V.A. Journal and News Bulletin*, February, 1940, pp. 59-61.

formulated by the committee, are:

1. Make a beginning and advance in farming.
2. Produce farm commodities efficiently
3. Market farm products advantageously
4. Conserve soil and other resources
5. Manage a farm business
6. Maintain a favorable environment.

It is suggested by the committee that chief concern be given to the individuals who are to be trained Production and other activities are to be regarded as means toward ends. The principle of self-activity should be put into practice. Farming practices of students need to be analyzed to see to what extent they meet appropriate objectives and standards Different individuals and groups should be approached with due recognition of their maturity, training, and experience.

BASIC REQUIREMENTS IN VOCATIONAL AGRICULTURE. Since the general conditions and requirements in vocational agriculture, as they relate to the Smith-Hughes and George-Deen Acts, have been discussed in preceding chapters, they will not be repeated here.[8]

Basically, the effectiveness of a program of agricultural education depends upon a combination of certain factors, some of which are:

1. The nature of the provisions for vocational agriculture incorporated in the state plan for vocational education
2. The scope and quality of the state program for teacher-training in agriculture
3 The local, state, and federal resources that are made available.
4 The objectives, initiative, resourcefulness and wisdom of state and local leadership
5. The professional zeal, training, experience, and effort of the teaching staff.
6 The community support given to the school
7 Studies, analyses, and research undertaken.

Much of the success of local programs in vocational agriculture depends upon the state supervisor, who is responsible for provisions in the state plan relating to agriculture [9] He

[8] See Chapter 5, p 97

[9] United States Office of Education, Vocational Division, Bulletin No. 13, Revised, 1939, pp 17-8

recommends approval of schools and classes and helps to organize and supervise schools and classes. The training of agriculture teachers in service and prospective teachers comes under his supervision. The approval of housing, equipment, courses of study, curriculums, and teachers is his responsibility. Other duties include making surveys and investigations and preparing descriptive and statistical reports in the area of his special interest, guiding the state association of the Future Farmers of America, conducting local, regional, and state-wide conferences, encouraging the development of individual farming programs, and making contacts with individuals, organizations, and groups having interests in rural life and farming. County, regional, and local supervisors or advisers assist in formulating state policies and in helping to develop the programs in their respective service areas.

TYPES OF SCHOOLS AND CLASSES It is a matter of common knowledge that agriculture was first taught extensively in the land-grant colleges of the United States. Prior to 1917, when the Smith-Hughes Act was passed, several states had developed regional schools for agriculture of less than college grade, and some of the land-grant institutions gave short courses of variable length to young men and adult farmers who were not candidates for college degrees. As a matter of fact some short courses not carrying college credit are still given by a few colleges and universities

Our chief interest in this chapter, however, is in types of agricultural schools and classes of less than college grade, conducted under the auspices of the public schools in accordance with the provisions of state plans of vocational education

1. *All-day schools or departments.*[10] All-day schools or departments are operated as regular units of the public schools In most instances the unit is organized as an agricultural department in the high school or other community school A separate building is often provided which houses

[10] Commonwealth of Pennsylvania, *Vocational Agriculture in Pennsylvania,* by H. C Fetterolf, G L Reisner, J. S Champion, and V. A. Martin, Bulletin 250, Department of Public Instruction, Harrisburg, 1939.

both the vocational argiculture and vocational homemaking departments. In Pennsylvania separate schools are known as rural community vocational schools

All-day schools or departments have instructional facilities that should, of course, be used as much as possible. Part-time and evening classes are often conducted in the classrooms, laboratories, and shops normally used by all-day classes

2. *Day-unit classes.* Day-unit classes operate in centers where full-time departments or schools are not feasible. In Pennsylvania day-unit classes are conducted on the basis of one ninety-minute period per week. The classes are taught by county vocational education advisers who are attached to the office of the county superintendent of schools. The salary and traveling expenses of county advisers are paid from state and federal funds.

3. *Part-time classes for out-of-school youth.* The problems of out-of-school youth are quite different from those of full-time students Under Public Law No. 812, Chapter 780, 76th Congress, 3rd Session, the United States Office of Education was authorized to make payments to the states for training out-of-school rural and nonrural youth in connection with the then prevailing National Defense Training Program. However, the problem of providing suitable vocational training for rural out-of-school youth existed long before 1940 and will probably remain vitally important in the years ahead.

The primary aim of instruction for young men on farms during approximately normal times should be to establish them on farms and to help them progress satisfactorily in their chosen occupation The opportunities of young men to become so established and the ways in which they are achieving this aim are receiving much deserved attention. R. W. Gregory has put the matter thus:

> The biggest problem facing America is that of helping young men get jobs, of helping young men wanting farms to get into farming Placement in farming is largely a local problem and will be solved largely on a local basis Workers in vocational education in agriculture must come to accept the final achievement of getting into farming on the part of boy and young

men students wanting to farm as the best criterion for measuring the worth of their programs of instruction[11]

4 *Evening classes for adult farmers* Since 1921 there has been a consistent gain in the number of adult farmers who have enrolled in evening classes in vocational agriculture operated under the Smith-Hughes and George-Deen Acts. As a rule the classes meet at the local high school or in some other rural community building such as a Grange hall or rural community vocational school.

Classes are usually in charge of local teachers of vocational agriculture or county advisers. Agricultural education workers and specialists from the land-grant institutions are sometimes called upon to supplement the local instructors

Farmers enrolled in evening classes usually do not carry on supervised farm projects as such, but use their instruction in a practical manner to improve their farming programs. The conference technique is used to advantage with adult classes. The local instructor usually serves as a conference leader, as a traffic officer of ideas[12]

In view of the vital need for effective vocational training for adults as well as youth, boards of education will do well to look upon evening classes in agriculture as an indispensable and integral part of a well-rounded program having special funds set aside to enable it to be carried on effectively

VARIABILITY IN FARMING STATUS The variability in farming status presents challenges to teachers of part-time and evening classes. Surveys of out-of-school young men on farms show them to be a very heterogeneous group as to farming status. H. M. Byram and T. H. Kerrey reported a study of 472 young men on farms in Michigan. Of these "41.2 per cent were at home with definite or indefinite allowance, or as farm laborers at home; 14 2 per cent in partnership; and 12.5 per cent at home with income from one or more enterprises." The authors conclude that on the basis of present data it is difficult to say how well supervised

[11] From address delivered by Dr. R W Gregory at the A V A Convention, Grand Rapids, Michigan, December 8, 1939

[12] United States Office of Education, Vocational Division Leaflet No. 6, 1939

farming programs reflect the aim of such instruction, namely, "Progress within a farming status or toward a higher status."[13]

A study made by G. F. Ekstrom of 276 young farmers enrolled in part-time classes in Minnesota showed that more than 2 out of 3 were at home with a definite or indefinite allowance; approximately 28 per cent were in partnership; and over 26 per cent were at home with income from one or more farm enterprises.

BUSINESS PROBLEMS IN FARMING. Although farming is obviously a vocation centering on the production of crops and the raising of farm animals and poultry, it needs to be recognized that farmers have a variety of business problems with which they must deal.

Dr. Roy W. Roberts of the University of Arkansas and Dr. F. W. Lathrop of the United States Office of Education have developed a series of eleven units that deal with some of the more important problems involving business aspects of farming The units were suggested by representatives of the Farm Credit Administration and are planned for teachers of agricultural evening schools. These units are:[14]

Unit 1. Improving the farm
Unit 2. Selecting the farm.
Unit 3 Buying the farm.
Unit 4. Buying insurance.
Unit 5. Making the farm inventory and credit statement.
Unit 6 Recording receipts and expenditures.
Unit 7 Summarizing the year's business
Unit 8 Interpreting the agricultural outlook
Unit 9. Selecting and adjusting the enterprises.
Unit 10. Financing current farm operations.
Unit 11 Planning cooperative activities

SOIL EROSION. Dr Karl T. Compton, chairman of President Roosevelt's Science Advisory Committee, reported:

> The gravity of the soil erosion problem in the United States is apparent from the estimates that have been made of its extent. At least 35,000,000

[13] "From Where They Are to Where They Want to Be," *Agricultural Education Magazine*, October, 1942, pp 70-1.

[14] United States Office of Education, *Business Problems in Farming*, Vocational Division Bulletin No. 183, 1936, 71 pp

acres of formerly valuable cultivated land already have been essentially ruined in so far as further practical crop use is concerned, and 125,000,000 additional acres, most of them still in cultivation, have been largely stripped of the productive top soil with a resultant decline of the productivity ranging up to 90% At least 100,000,000 acres of our remaining valuable agricultural lands are heading rapidly in the same direction and thus are being transformed into marginal and submarginal land

Nine per cent of our acres of crop land have been completely ruined; 30 per cent partially ruined; and from 14 to 24 per cent are potentially subject to destruction[15] The conservation of soil, water, wildlife, farm wood lots, and other natural resources should be an integral part of vocational education in agriculture.[16]

It has been said that farm land is our only natural resource that does not become exhausted through use. Obviously that is true only where proper crop rotation and other soil conservation methods are employed consistently. When the demand for labor is strong in urban centers there is a tendency in some quarters to neglect farming temporarily to make more money elsewhere. In 1939 two out of seven farm operators in the United States worked off their farms for pay or income. An average of 137 days a year was spent in this manner. One out of seven worked 100 days or more off farms during the year. Approximately three out of fourteen farmers worked off their farms at nonfarm jobs. Men so employed worked 159 days a year at nonfarm work, while those who worked off their farms on other farms averaged 61 days a year.[17]

THE HOME PROJECT DEFINED. In 1906 Massachusetts began to develop state-aided vocational education, including agricultural education. Dr. Rufus W. Stimson, then president of the Connecticut Agricultural College, became the director of the first vocational agricultural school in the Bay State. In 1911 Dr Stimson was made state supervisor

[15] Fred W. Sargent, *The Deserted Village*, American Political Economy Pamphlet No 9, The Chemical Foundation, Inc, 654 Madison Ave, New York, 1936

[16] United States Office of Education, *Conserving Farm Lands*, Vocational Division Bulletin No 201, by Tom Dale and W A. Ross, 1939, 104 pp.

[17] *Sixteenth Decennial Census of the United States*, Bureau of the Census, Vol. III, Chapter V, "General Report on Agriculture."

of agricultural education, a position he still occupies in an emeritus status.

It appears that the word project was first applied to education in 1908-1909 by Dr. David Snedden, at that time commissioner of education for Massachusetts, by Dr. Rufus W. Stimson, and by Dr. Charles A Prosser, who were coworkers in vocational education[18] Dr. Snedden defined a vocational project in the following manner. "A project in vocational education is a definite unit of instruction which combines practical or manipulative achievement with definite enhancement of power to apply related technical knowledge."[19]

In vocational agriculture the project is a productive farm enterprise of considerable scope, undertaken and carried out on the home farm by the student under the supervision of a teacher of agriculture and with the approval and cooperation of the parents or guardians.[20] Projects are classified in various ways—for example, as individual home projects, group projects, shop projects, productive projects, improvement projects, and community projects

The objectives of supervised farming programs, as seen by Dr. G. P. Deyoe of Michigan State College, are:[21]

1. To develop abilities needed for proficiency in farming of the type in which the boy is likely to engage
2. To earn money
3. To aid in the establishment in farming
4. To improve the home farm business
5. To improve farming in the community
6. To contribute to improved living on the farm
7. To develop an increased interest in farming
8. To develop attitudes and ideals of cooperation

Essentials of Home Projects As far back as 1918 the Federal Board of Vocational Education indicated that the

[18] F Theodore Struck, *Methods and Teaching Problems in Industrial Education*, John Wiley & Sons, Inc, New York, 1929, p 47

[19] David Snedden, *Vocational Education Magazine*, The Macmillan Company, New York, 1920, p 561

[20] Commonwealth of Pennsylvania, Department of Public Instruction, Bulletin 250, p 18

[21] G P Deyoe, "Evaluating Outcomes of Supervised Farming Programs," *Agricultural Education Magazine*, February, 1942, pp. 146-7.

essentials of a home project in vocational agriculture should include the following:[22]

1. A carefully prepared, written project plan, calling for work to be done that is new to the learner, that is vocationally essential, and that involves a considerable period of time
2. An agreement between the parent, pupil, and teacher that sets forth the principal points involved in the project, especially the learner's financial rewards.
3. Provision for group and individual instruction relating specifically to the work to be done
4. Record keeping of methods, materials, time, cost, income, and other cognate matters.
5. Reporting descriptive, statistical, and complete cost accounting for the project from start to finish.
6. Supervision by the agricultural teacher, including instruction, and assistance in anticipating and meeting difficulties that may arise.

A PROJECT AS A UNIT IN A FARMING PROGRAM A new conception of the terms project and supervised farm practice has been developing over a period of years When courses in vocational agriculture were first established in secondary schools under the National Vocational Education Act, the mandatory provision for "at least six months of directed or supervised practice" in vocational agriculture was interpreted in numerous ways After a quarter of a century of experience, however, many workers in the field of vocational agriculture are coming to realize that this provision in the original act constitutes an unusual opportunity to assist individual students of vocational agriculture with the actual development of individual farming programs [23]

The conception of a completely developed individual farming program goes far beyond the plan of having a student carry as a requirement several different projects during the time he is enrolled, with perhaps little or no continuity existing between these projects. A supervised farming program means for each student concerned steady

22 Federal Board for Vocational Education, *The Home Project as a Phase of Vocational Agriculture,* Bulletin No 21, 1918, p 9.

23 United States Office of Education, *Directing Vocational Agriculture Day-School Students in Developing Their Farming Programs,* Vocational Division Bulletin No. 225, Agriculture Series No. 56

"building and growing" into a farming business. It means intelligent planning and development while farming under supervision. With such a point in view, a project becomes a unit in a farming program.[23]

WAYS OF IMPROVING HOME PROJECTS CONDUCTED AS UNITS OF A FARMING PROGRAM. A summarization of suggestions as to how the teacher of vocational agriculture may stimulate boys to carry on better home projects has been made by L. L. Saphore.[24]

1. Be personally interested in every boy and his project
2. Emphasize high quality projects
3. Point out to pupils possibilities in project work.
4. Publicly and privately compliment students carrying successful projects
5. Keep matter of school credit minimized
6. Don't accept poor projects
7. Emphasize economic possibilities.
8. Promote competitive spirit.
9. Develop local pride in program.
10. Have boys with good projects encourage other boys to carry good projects.
11. Encourage showing of projects and products at exhibitions
12. Give boys opportunities to express their opinions on projects of the group.
13. Check and closely supervise projects
14. Encourage boys to make long-time plans.

REQUIREMENTS FOR A DEPARTMENT OF VOCATIONAL AGRICULTURE. Considerable latitude prevails in requirements that must be met in establishing departments of vocational agriculture in the states and territories. In view of existing differences in local conditions, resources, teachers available, and other factors the situation could scarcely be otherwise.

For good results a minimum of two rooms is required. One of them may be planned and equipped to serve as a combination classroom and agricultural laboratory. The other should be equipped and used as a farm shop A standard-sized classroom may meet minimum standards of

[24] L L Saphore, "Wyoming County Teacher's Study Project-Program," *Pennsylvania Agricultural Education*, Vol XVII, No. 7, April, 1938, p 4, Department of Rural Education, The Pennsylvania State College, State College, Pennsylvania

size for the classroom-laboratory combination unless the group to be served is larger than can be accommodated in that space. It would be better if space equal to one and one-half or two classrooms could be made available for the purpose. The farm shop should have a floor area equal to one and one-half classrooms as a minimum; an area equal to two classrooms is better, and in view of increasing rural mechanization even larger farm shops are highly desirable

The emphasis in equipping a school farm shop should be upon tools and appliances that successful farmers in the community find useful. Reasonably adequate equipment for a farm shop may cost between $1000 and $3000.

In Pennsylvania a 120-minute period per day per student is recommended for the study of vocational agriculture for the all-day groups of youth in schools and departments. The remainder of the day is spent in nonvocational studies such as English, American history, science, and mathematics.

Field trips and visual-sensory aids of other kinds, such as lantern slides, motion pictures, charts, specimens, and models, are distinctly useful as means of supplementing other forms of instruction given at school and on the home farm

State authorization to organize a state or federally aided school or department is secured through the state board for vocational education Such an authorization may be based upon detailed information about the need for instruction in vocational agriculture or for a program in agriculture and one in homemaking where the two are to be developed concurrently.

Students may reside in the district sponsoring the school or may come from a wider service area Joint, consolidated, regional, and state schools may be established

The amount of state and federal aid should be determined at the outset, and the district's probable share of the costs needs to be determined as accurately as possible. In planning schools and departments serious thought deserves to be given to using the school plant for out-of-school youth and for adult groups as well as for youth of compulsory school age It may be possible to plan shops, laboratories, assembly rooms, and recreational facilities so that afternoon and

evening groups can use them without the necessity of heating or opening the entire school plant at such times.

WAR AND POSTWAR PLANNING IN AGRICULTURE. Dr. Oscar R. LeBeau of the United States Bureau of Agricultural Economics has pointed out three ways in which teachers of vocational agriculture can contribute to war and postwar planning.[25]

1. By disseminating useful agricultural information to all-day classes for high school students, to part-time classes for out-of-school youth, and to evening school classes for adult farmers
2. By assembling and interpreting basic information relating to farming and to rural life
3. By helping farmers in making needed agricultural adjustments

There is considerable evidence that much readjustment must be made in agriculture in the years ahead The report of the Director of the Office of Foreign Relations, 1941, states that there can be little doubt about severe food shortages developing in central Europe when the war ends, and that we have a definite interest in agricultural reconstruction within the war-stricken areas The director reminds us that to resume exporting we must resume importing. In his judgment, although the establishment of trade conditions and relationships consistent with lasting peace is of vital concern to all of us, it is of special concern to American farmers, many of whom are dependent upon reasonably stable markets and prices for their export crops [26]

Some of the wartime problems, as seen by Dr. William I. Myers, involve increasing food supplies, maintaining farm machinery, meeting shortages in food containers and tin shortage for canning goods for sale Others have to do with scarcity of fertilizer materials of certain sorts, and of some kinds of spray materials, with transportation problems, and with farm debts [27]

Dean Paul W. Chapman of the University of Georgia

[25] Oscar R LeBeau, "How Teachers of Vocational Agriculture Can Contribute to War and Post-War Problems," *Agricultural Education Magazine*, May, 1942

[26] *Report of the Director of the Office of Foreign Agricultural Relations*, 1941, p. 5

[27] William I Myers, "Some Wartime Problems of Farmers," *Agricultural Education Magazine*, Vol XV, No. 6, December, 1942, p 104

says, "Fifty out of over 100 farm boys will ultimately have to become entirely dependent upon a non-agricultural occupation Twenty-five out of 100 will live on farms having resources so small that part-time non-agricultural work is necessary."[28]

COOPERATION BETWEEN TEACHERS OF VOCATIONAL AGRICULTURE AND HOME ECONOMICS. J. A Linke, Edna P. Amidon, and other associates in the United States Office of Education have pointed out that "there is no vocation that is so dependent on the close cooperation of husband and wife as the business of farming."[29] The farm family is a unit, each member of which should understand rural life and contribute to it if old enough to do so As a means of furthering cooperative educational programs in vocational agriculture and home economics, instruction is needed at both the secondary and the post high school levels

A comparison of the objectives of vocational agriculture as set forth in this chapter and of home economics as presented in Chapter 19 indicates that these services have objectives in common The Office of Education has suggested that frequent meetings of supervisors of vocational agriculture and of home economics be held to plan a stable program involving (1) conferences of district supervisors of the two services, including teachers, administrators, and school board members; and (2) a provision for district supervisors who would promote the interests of both groups.

The suggestion has also been made by the Office of Education that teacher-trainers of both services work together in order that teachers in both fields may have a better understanding of how they may cooperate in the interests of better rural life and better farming.

It is clear that the approach to farm-family living must be adapted to the groups to be served. Youth in full-time schools, young men and women, and adults each need to be approached in different ways Adults are interested in economic security, food production, marketing, family

[28] Paul W. Chapman, *Opportunities in Farming*, American Job Series, Occupational Monograph No 18, Science Research Associates, Chicago, 1941.

[29] United States Office of Education, *Farm-Family Living*, Vocational Division Monograph No. 22, 1941.

health, education for their children, church, and other community matters. Young men and women are concerned with becoming established on farms and in homes of their own, whereas the younger group in the full-time schools has not yet progressed to that point

COMMUNITY COOPERATIVES. In the judgment of D. M. Clements, cooperatives have made such gains that "the real struggle of cooperatives is about over" He cites examples in Georgia and South Carolina where teachers of vocational agriculture sponsored community canning plants. Other examples given include a cooperative cold storage plant and a freezer locker system. A cooperative hatchery incubates and broods thousands of chicks

In Mississippi a cooperative cotton gin serves a community effectively. In another community in the same state a loan service was provided cooperatively. A dairy cooperative has 130 members. A mule production association, a seed-marketing association, a Jersey breeder's association, and a one variety cotton improvement association are other examples from the same state

In North Carolina there is a poultry cooperative marketing association at Troy. At Ansonville a cooperative cannery put up over 20,000 cans in one year [30]

The cooperative movement is extensive and is not limited to any particular section of our country Extensive cooperatives also operate in Canada and elsewhere.

It is not to be assumed that cooperatives have developed to the point where further promotion is not needed M. C. Gaar reported that only approximately 40 per cent of the farmers of the United States were doing business cooperatively in 1937-38 and that less than one-third of the total farm produce was sold through cooperatives.

The cooperative effort is most strongly developed in the north-central states and the northeastern states and on the Pacific coast [31]

[30] D M Clements, "Community Co-operatives," *Agricultural Education*, April, 1942, pp 186-7

[31] M C Gaar, "Responsibility of the Teacher of Vocational Agriculture in Developing Farmers' Cooperatives," *Agricultural Education Magazine*, March, 1942, pp 164, 178

COOPERATION WITH PARENTS Some practical suggestions for securing the cooperation of parents were set forth some time ago by L. L Saphore. As everyone who is familiar with agricultural education knows, the cooperation of parents is a potent force in successful home projects and also affects the whole school program. Mr. Saphore's suggestions follow.[32]

1 Father-son banquets
2 Moving pictures of project work.
3 Local project annual
4 Project pictures
5 County project summaries
6 Personal contact of teacher with parents
7. Requirement of neat, adequate records
8 Close project supervision
9. Project tours
10 Part-time work.
11. Chapter-parent cooperative activities in Future Farmers of America

SELECTING AGRICULTURAL TEACHERS. Nine factors in teaching success have been listed by L. H. Harden of the University of Minnesota

1 General academic ability (intelligence).
2. Proper attitude toward rural life (interest in farming).
3 Interest in teaching
4 Farm experience
5 Social proficiency and interest
6 Duration of interest in teaching
7 Emotional stability (balanced personality)
   *a* Satisfactory social and economic experience
   *b* Satisfying community and family life
8. Physical fitness (physical energy and vitality)
9. Skill in expression

A clinical approach is used to determine whether the individual possesses the potentialities that have been enumerated Records are studied, tests are given, and a thorough analysis is made of the individual The data are then organized and evaluated, diagnostic findings are made, and prognostications are based upon the evidence secured

Other investigators, including C. S Anderson, Fred E.

[32] L. L Saphore, "Wyoming County Teachers Study Project-Program," *Pennsylvania Agricultural Education*, April, 1938, p 2

Armstrong, A. S. Barr, Sherman Dickinson, R. W. Stenier, H. G. Von Haden, and R. M. Stewart, have contributed to better teacher selection.[33]

DEVELOPING GOOD TEACHING. According to H. E. Bradford, "good teaching methods always involve both techniques and philosophy."[34] The philosophy should include a good understanding of psychology. The following list of methods of teaching was used by Professor Bradford in conducting an interesting inquiry that showed conclusively that good teaching methods are capable of analysis and can be evaluated with benefit to teachers.

1. Using illustrative material and evaluation of results
2. Making the supervised farming program an essential and useful part of the classroom teaching
3. Describing certain methods that have been successful in attaining the following objectives
   *a.* Developing confidence
   *b.* Developing managerial ability.
   *c.* Developing initiative
   *d.* Creating sustained interest.
   *e.* Developing shop and farm skills
   *f.* Developing certain types of leadership
   *g.* Increasing the number of approved farm practices used on home farms
4. Adapting and managing experimental and other data for use in classroom teaching.
5. Describing methods successfully used in producing certain results with young-farmer and adult-farmer classes.

THE TEACHER OF VOCATIONAL AGRICULTURE AS A COUNSELOR. In the opinion of L. R. Humphreys there is much need for vocational guidance for persons living in rural areas.[35] Dr. Humphreys is among those who believe that the teachers of vocational agriculture must take a major part in this guidance service. He believes the teacher of vocational agriculture is the logical person to render this service

[33] "A Clinical Technique for the Selection of and Guidance of Agricultural Education Trainees," *Agricultural Education*, December, 1942, pp. 106-7, 118.

[34] H. E. Bradford, "The Development of Good Teaching Methods," *Agricultural Education*, July, 1941, pp. 8-9.

[35] L. R. Humphreys, "The Teacher of Agriculture as a Guidance Worker," *Agricultural Education*, November, 1941, pp. 86, 98.

and that rural progress will be retarded if the service is evaded.

As a means of providing participating experiences, each senior at the Utah State Agricultural College who is preparing to teach vocational agriculture is made responsible for a definite program of guidance given to a freshman who has expressed the same ambition A teacher-trainer serves as adviser to the senior, who visits the freshman at his home, talks with him at length, and gives practical guidance to him for a two-year period

AFTER-SCHOOL FOLLOW-UP Some time ago Dr. Rufus W. Stimson, Supervisor Emeritus of Agricultural Education in Massachusetts, set forth in writing ten basic follow-up principles Of these, eight have been fundamental to agriculture teachers in Massachusetts in their follow-up programs. These basic principles, as set forth by Dr. Stimson's successor, John G Glavin, State Supervisor, Massachusetts, are, in abbreviated form:[36]

1. The follow-up of former vocational agricultural students should be personal
2. The follow-up facts should be recorded
3. The follow-up facts should be used in teaching
4. The follow-up facts should be used in course making
5. The follow-up should cover all.
6. The follow-up should be for life.
7. The follow-up should help recruiting.
8. The follow-up should help in arousing, stabilizing, and improving public support of vocational agricultural education programs.

FUTURE FARMERS OF AMERICA. An organization the purposes, programs, and achievements of which are closely linked with the welfare and progress of vocational education in agriculture is the Future Farmers of America It is a national organization of farm boys who are enrolled in vocational agriculture in the public secondary schools of the United States.[37]

The excellent pioneer efforts of the Future Farmers of

[36] John G Glavin, "Follow-Up Program in Vocational Agriculture," *Agricultural Education*, September, 1942, pp 48-9

[37] *Future Farmers of America, Revised Manual*, The French-Bray Printing Co, Candler Building, Baltimore, Maryland

Virginia under the leadership of Henry C. Groseclose, together with similar developments in other states, attracted the attention of those who cooperatively organized the Future Farmers of America A temporary constitution patterned largely after that of the Virginia group was drafted in the summer of 1928 The Agricultural Education Service of the United States Office of Education (then of the Federal Board for Vocational Education) took the leadership in developing a national program. The first national convention was held in November, 1928. Within 6 years 47 states, Hawaii, and Puerto Rico were represented in a membership then totaling approximately 82,000 persons; in 1942 the membership was approximately 241,000 In view of the great significance of the Future Farmers of America a statement of the aims and purposes of the organization as given in its national constitution follows.

1 To develop competent, aggressive rural and agricultural leadership.
2. To create and nurture a love of country life
3 To strengthen the confidence of farm boys and young men in themselves and their work
4 To create more interest in the intelligent choice of farming occupations
5. To encourage members in the development of individual farming programs and establishment in farming
6. To encourage members to improve the farm home and its surroundings.
7. To participate in worthy undertakings for the improvement of agriculture
8. To develop character, train for useful citizenship, and foster patriotism
9. To participate in cooperative effort
10 To encourage and practice thrift.
11. To encourage improvement in scholarship
12. To provide and encourage the development of organized rural recreational activities.

The national organization is made up of affiliated state associations These in turn are composed of local chapters in federally aided schools of vocational agriculture operating under the Smith-Hughes and the George-Deen Acts.[38]

[38] Manuals and other supplies are secured through the State Adviser and the National Executive Secretary of the Future Farmers of America, United States Office of Education, Washington, D C

Manuals of Instruction. A series of concise manuals dealing with courses in rural war production training in agriculture has been prepared by Dr. Russell B. Dickerson.[39] The introductory manual covers objectives of courses, things to do before classes are organized, and forms for surveying rural needs

Other manuals in the series are Course 6, *Increasing Milk Production;* Course 7, *Increasing Poultry for Meat Production,* Course 8, *Increasing Egg Production;* Course 9, *Increasing Pork Production;* Course 10, *Increasing Beef Production,* Course 11, *Increasing Mutton, Lamb, and Wool Production,* Course 12, *Increasing Soybean Production;* Course 14, *Increasing Vegetable Production (Commercial).*

Courses similar to these have been and are being developed in other states. The topics have been specified by the United States Office of Education. In order to meet federal requirements courses must meet specified conditions.

The content of these courses appears to be just as valuable for the postwar period as for the emergency; the courses deserve careful study

## *FOR DISCUSSION*

1 Discuss present trends in rural population and point out their implications.

2. Why is there such a wide range in size of farms and ranches?

3 Name as many types of farms as you can

4. Is it easier to succeed in farming than at a skilled trade? Explain.

5 What are some of the factors that contribute to difficulties in farming?

6 Name five or six specific objectives of vocational education in agriculture.

7. Describe each of the following types of agricultural schools or classes all-day, part-time, evening

8 Enumerate a half-dozen or more business problems in farming

9. Discuss the extent of soil erosion and methods of reducing it.

10 What are the essentials of home projects in a supervised farming program?

11 Explain what is meant by the home project as now carried out.

12 How may home projects be improved?

13. Describe the requirements for a department of vocational agriculture.

14 Express your views with regard to war and postwar conditions in agriculture.

[39] Prepared under the authority of the State Board for Vocational Education by the Department of Rural Education, The Pennsylvania State College.

15 How may teachers of vocational agriculture and of home economics cooperate?

16 Describe the objectives and functions of community cooperatives.

17. Explain how the cooperation of parents may be secured

18 What are the essentials of good teaching in vocational agriculture?

19 How may the teacher of agriculture serve as a guidance counselor?

20 Describe the experience of Dr. Rufus Stimson and others with follow-up work

21 Explain in detail the objectives and procedures of the Future Farmers of America.

22 Describe one or more manuals of instruction that are useful to teachers of vocational agriculture

23 Name several text and reference books that teachers of vocational agriculture should own

24 What magazines are most helpful to teachers of agriculture?

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## CHAPTER 18

# *Distributive Education*

EARLY BEGINNINGS IN DISTRIBUTIVE EDUCATION. When the Smith-Hughes Act was passed in 1917, its framers excluded federal reimbursement for business education The reason, which was not difficult to find, was that business education had already been organized in many high schools. The chief purpose of the act was to stimulate the development of needed forms of vocational education, not to subsidize from vocational funds forms of instruction already extensively given and aided through general education funds Although business education was widely taught, it was unfortunate that it was presented so extensively in an academic manner

The framers of the Smith-Hughes Act had the foresight to realize that even though it was unwise at that time to give direct aid to business education as such under the act, leadership in business education was imperative Fortunately, Frederick G Nichols was made Assistant Director for Business Education on the staff of the Federal Board for Vocational Education, now the United States Office of Education. Even at that early time Professor Nichols realized that there was a distinct need for assistance to the states in the area of retail selling The first dollar spent for research under his direction while he was in charge of commercial education as a member of the professional staff of the former Federal Board for Vocational Education was spent on Bulletin No 22, *Retail Selling Education.*[1]

During the twenty years that followed, progress in better and more widely available training for store service was relatively slow. However, with the passage of the George-Deen Act of 1936, that neglected part of the broader field

[1] United States Office of Education, Misc 2124, *Preliminary Report of the Distributive Education Conference, June 23-24, 1938,* August, 1938.

of commercial or business pursuits has received recognition which has culminated in authorization for federal aid. It may be noted that the terms business education and commercial education are synonymous and that distributive education is part of the broader field of business education.

DISTRIBUTIVE EDUCATION DEFINED The United States Office of Education has made it clear that:[2]

> Distributive occupational subjects are vocational subjects taught in part-time and evening classes to workers engaged in distributive occupations
>
> Instruction in either part-time or evening schools must be limited to *vocational* or related distributive subjects which are supplemental to the daily employment
>
> A *vocational* distributive subject is one involving a discussion or presentation of the specific working practices of a distributive occupation for the purposes of increasing the skill, technical knowledge, occupational information, or judgment of the workers engaged in that specific occupation
>
> A *related* distributive subject is one which is intended to enlarge the vocational knowledge, understanding, morale, or judgment of workers from one or more distributive occupations Thus, subjects bearing on the production and preparation of the commodities sold, the consumer demand for such commodities, social contacts for store workers, laws affecting stores and business, art principles to be followed in the display of goods or preparation of advertisements, science in the sanitary handling of perishable goods, business organization and management, economics of retailing, are all examples of related distributive subjects.

According to the pronouncement of the Office of Education, distributive occupations are those followed by "workers who are directly engaged in merchandising activities, or in direct contact with buyers and sellers when—

*a* Distributing to consumers, retailers, jobbers, wholesalers, and others the products of farm and industry.
*b.* Managing, operating, or conducting a commercial service or personal service business, or selling the services of such a business."

Distributive occupations do not include those of a clerical nature, such as bookkeeping, stenography, and office clerical work Railroad workers, such as baggagemen and express-

[2] *Statement of Policies for the Administration of Vocational Education,* pp. 66-7.

men and such other transportation personnel as truckdrivers and deliverymen, likewise are not included.

OBJECTIVES OF DISTRIBUTIVE EDUCATION. Since the controlling purpose of distributive education is to fit for effective work, it is clear that the program of education set up should dovetail with the actual job requirements for which training is given If these requirements are not known they may be determined through the technique of job analysis [3]

Among the skills that are likely to be of value to sales persons are the ability to meet people in a pleasing and easy manner, to help customers get what they desire, and to give factual data concerning the products sold—what the special characteristics are and how they may be used to best advantage—and how to take care of the product and display it to advantage A well-trained sales person also knows how to get along with others, how to be one of a team, and how to make friends for his employer.

NEED FOR DISTRIBUTIVE EDUCATION. The need for stimulating distributive education has become increasingly evident during the past two decades. It is known that out of every dollar spent by United States consumers, forty-one cents goes to the producers, whereas fifty-nine cents are spent for the distribution of the goods.[4] The latter cost appears to be high, even when ample allowance is made for the excellent distributive services we enjoy. It would appear possible to reduce the costs of distribution through planned vocational instruction This possibility is what lies back of federal and state plans that provide aid to distributive education.

A study of census data shows that the trend in occupations in so-called normal times is in the direction of a smaller per cent of gainfully employed workers who do production work and a larger per cent in service occupations. The increase in persons receiving instruction in federally aided programs in the distributive field has been encouraging.[5]

[3] See Chapter 13, p. 258.

[4] Kenneth B Haas, *Distributive Education,* Chapter I

[5] United States Office of Education, *Digest of Annual Reports of State Boards for Vocational Education to the United States Office of Education*

More efficient and more abundant instruction in distributive occupations bears a direct relationship to improvements in standards of living. All of us are consumers of many products, such as clothing, food, and shelter The labor turnover in distributive occupations is much too high. It is estimated at approximately 20 per cent among full-time workers.[6] The ratio would be higher if part-time employees were included.

Haas states that since 1900, retail store operating costs have risen constantly, an average of 24 to 36 per cent of net sales. He believes, as do other leaders in distributive education, that the field has been neglected too long.[7]

Retailing is an important part of the work of practically all communities Its distribution is wider than manufacturing, on the one hand, and agriculture on the other.

Reasons for Anticipating Development. Among the reasons that may be advanced as a basis for anticipating considerable development and growth in distributive education are the following:

1. The obvious need for reducing the costs of distribution through systematic instruction.
2. The evident need of a better quality of sales service in the majority of stores
3. The eagerness of merchants to cooperate with school authorities to provide better retail training.
4. The trend toward more generous federal and state financial support for functional types of vocational education
5. The availability of a small but growing number of competent leaders at federal, state, and local levels, and of professionally trained teachers of distributive education.
6. The previous successful experience of school authorities, employers, and labor with part-time and evening vocational classes.
7. The large number of persons employed in distributive occupations.

Commercial Education under the Smith-Hughes Act. Although no separate funds were made available for commercial education under the Smith-Hughes Act, there is an interpretation of the act which makes it possible to reimburse commercial education classes that may be established in part-time or general continuation schools. Com-

[6] Kenneth B Haas, *op cit*, p. 6.
[7] *Ibid*

mercial subjects suited to workers attending part-time or general continuation schools "may be considered as enlarging either the civic intelligence or the vocational intelligence. . . . This group of subjects includes stenography, advanced bookkeeping, elementary accounting, retail selling, office machine operating, billing, filing, messenger service, shipping clerk work, time clerk work, cost clerk work, or cashier work, and all courses for training for special store or office positions "[8]

Some years ago most states had extensive programs for part-time continuation pupils Many states required youths between the ages of 14 and 16 or 14 and 18 who were employed in trade and industrial occupations to attend part-time continuation schools or classes 4 or more hours a week. The passage of the National Recovery Act and of subsequent social security legislation greatly reduced the number of such pupils.

REQUIREMENTS FOR DISTRIBUTIVE EDUCATION. At least five specific requirements need to be met in order that a program of distributive occupational training may be reimbursed from federal funds under the George-Deen Act. They are:

1. The teacher shall have at least the minimum qualifications provided in the State plan for teachers of the particular distributive occupational subject he is to teach
2. The pupils shall be employed in a distributive occupation or in other work involving contact with consumers.
3. Pupils in a part-time class must be 14 years of age or over, in an evening school they must be 16 years or over
4. All classes must be under public supervision and control
5. The time given to instruction of part-time pupils shall not exceed each day, week, or other unit of time, the number of hours that the pupils are employed during the same unit of time [9]

In addition to the foregoing requirements such others as may be incorporated in the state plan for vocational education or are required by the local board of education may need to be met.

[8] *Statement of Policies for the Administration of Vocational Education*, p 64

[9] *Statement of Policies for the Administration of Vocational Education*, p. 67.

EVENING SCHOOL CLASSES IN DISTRIBUTIVE OCCUPATIONS. Federal aid is not possible under Section 2 of the George-Deen Act for the reimbursement of the salary of evening school teachers when the purpose of the instruction is to prepare individuals for distributive occupations. Under Section 2 the instruction is reimbursable from federal funds only when the students are already employed in distributive occupations.

PART-TIME SCHOOLS AND CLASSES. Three kinds of part-time distributive occupational classes may be federally aided. They are (1) classes composed of persons employed in distributive occupations who can leave their work a few hours each week to attend a part-time school; (2) classes made up of persons employed in distributive occupations who can attend for limited periods of time when they are not employed, perhaps in the evening; and (3) classes recruited from persons who can attend school approximately half time and will be employed on a cooperative basis for at least an equal length of time.

The employment status of part-time pupils is subject to the interpretation made by the United States Office of Education that the phrase "workers over 14 years of age who have entered employment" shall mean persons who

1. Are lawfully employed
2. Have been lawfully employed but are temporarily without employment.
3. Are employed at home.

In the case of part-time cooperative vocational courses persons are eligible for enrollment and are regarded as employed persons "provided they spend as much time during the school week in regular employment as in school classes . . The hours in school and at work as well as the working conditions must conform to the State laws governing such conditions "[10]

The Office of Education holds that "if a part-time pupil is to be considered as an employed worker, he should receive,

[10] *Statement of Policies for the Administration of Vocational Education,* pp 50-1.

for the time he is employed, a monetary wage at a rate comparable to wages paid to other employees."[11]

CLERICAL COMMERCIAL SUBJECTS. Under certain conditions clerical commercial subjects may be reimbursed under Section 2 of the George-Deen Act. It has been ruled:

> Reimbursement may be made for the salary of such teacher only when he is teaching such aspects of these and other commercial subjects as are supplemental to the occupational needs of the workers in distributive occupations such as bookkeeping for retail grocers, for retail meat dealers, or for other specific kinds of stores or businesses, handwriting and arithmetic for sales people and store-workers, or typewriting for store or business owners and managers.[12]

Reimbursement under Section 2 of the George-Deen Act is not allowed for the salary of teachers of evening or part-time classes in shorthand, stenotyping, dictaphone operating, or similar subjects because they are not regarded as a part of the occupational requirements of workers in distributive occupations.[13]

HOMOGENEOUS GROUPING PREFERRED. In cities or other areas sufficiently large to make it feasible to organize distributive classes on a homogeneous basis such a method is advocated. For example, one or more classes may be organized for grocery store employees, one or more for retail meat shops, and one or more for dry goods store workers. In smaller centers where composite grouping is not practical, heterogeneous grouping is permitted when the instruction is organized on an individual basis so that each trainee will receive the specific vocational instruction he needs.

Related instruction may be given to all included in the groups to the extent that the subject matter meets common needs.[14] Whenever the number of learners enrolled is sufficient to form two or more classes it is expected that homogeneous occupational grouping will be followed.

[11] *Ibid.*, p. 71.
[12] *Ibid.*, p 68.
[13] *Ibid.*, p 68.
[14] *Ibid.*, pp 69-70

NEED FOR COORDINATION. The time spent in coordinating activities by a part-time or evening school teacher of distributive occupational subjects is looked upon by the United States Office of Education as "a fundamental necessity for efficient instruction in either part-time or evening classes, hence, the program for every teacher of distributive occupational subjects should include some time for coordination activities."[15] Such coordinating service is reimbursable under Section 2 of the George-Deen Act.

There is no objection to reimbursing the salary of a teacher of a part-time or evening class where all the employees belong to a single store, provided that the instruction is under public supervision and control and that the training be bona fide vocational training and not a device to use the services of the trainees for private profit. (See Section 6a of the George-Deen Act.)

OTHER RULINGS RELATING TO DISTRIBUTIVE EDUCATION.[16] The United States Office of Education has made the following rulings or interpretations:

1. Store educational directors may be employed as part-time teachers and their salaries may be reimbursed provided that the individual meets the requirements of the state plan for vocational education which has been approved by the United States Commissioner of Education.

2. It is the belief of the United States Office of Education that every state board should assume the leadership necessary to develop an adequate and efficient program of distributive education.

3. A local board of education may employ a properly qualified local supervisor of distributive education whether or not there is a state supervisor.

4. The state board for vocational education may designate whomever it desires as state supervisor, provided he meets qualifications set forth in the approved state plan for a state supervisor of distributive education. Supervisors of other vocational fields may serve also as supervisors of distributive education, provided that they meet the requirements as set forth in the approved state plan for vocational education. However, the United States Office of Education recommends the employment of full-time state supervisors of distributive education, and this recommendation is widely followed by the states.

ORGANIZATION PROCEDURES. It is customary for the state board for vocational education to send a staff member

[15] *Ibid.*, p. 71.
[16] *Ibid.*, p. 72.

to a community to help in organizing a program of distributive education or other kinds of vocational education, if such assistance is requested by the superintendent of schools

Preliminary steps in organizing a local distributive education program may vary somewhat It may be of interest to examine the organization procedures recommended by one of the states.[17]

1 Acquaint various community organizations, such as trade, business, and professional groups, with the training program which is available
2. Form an advisory committee composed of representatives of distributive businesses, distributive workers, and the local school system, who will aid in
   a. Determining need for the training program,
   b. Selecting courses of instruction
   c. Selecting teachers
   d Publicizing program

In Michigan classes may be organized at the request of ten or more persons desiring to take the training Classes may be held at any time desired and wherever facilities are available. Courses should be of the short unit type, should meet the needs of individual students, and should have non-essentials eliminated. The course content may have to be determined after the class has been organized and the needs of the members can be determined

Certificates of credit are issued upon the completion of any one course. When the trainee has completed all the courses within the occupational field, a diploma attesting to his proficiency in the field is issued to him

The following types of courses are recommended for store owners, managers, and executives:[18]

Personnel problems.
Merchandising
Advertising and sales promotion
Organization and management problems.
Window and interior display
Store arrangement and layout
Credit and collections
Consumer relations
Budgeting and expense control problems.

[17] State Board of Control for Vocational Education, Lansing, Michigan, *Distributive Occupational Training*, Bulletin No 237, Revised 1939, p. 7.
[18] *Ibid*, p 10

For employee groups the Michigan State Board of Control for Vocational Education recommends the following short units of instruction in distributive education.

- Salesmanship
- Effective speech
- Store organization.
- Merchandise information
- Credit and collections
- Window trimming
- Advertising.
- Store arithmetic
- Consumer relations.
- Fundamentals of retailing.

METHODS OF INSTRUCTION. In general the methods of instruction should be selected with reference to the maturity and experience of the learners and with due regard to the nature of the instruction. With older persons the conference technique often works well Practical demonstrations, followed immediately by students putting into practice what was demonstrated, are also effective Both group and individual instruction have a place Good questioning is conducive to learning. Visual and other sensory aids may be used to advantage, and observation of successful practitioners is also of value. Often a combination of methods is highly desirable

Instruction is likely to be most interesting and effective if the vocational and related instruction is based upon actual job requirements. On the job the time element as well as the quality of service is an important consideration.

SELECTING SUBJECT MATTER Haas believes that "a carefully planned sequence of subject matter" is essential.[19] He maintains that a curriculum in distributive education which is planned for long-time objectives should cover the elements of selling, a study of merchandise in the field of major interest, and other subjects such as economics, personnel problems, retail accounting, retail advertising, and retail-store management.

He appears to prefer the "interrelated program," in which the student obtains as a foundation an overview of the fields mentioned, to the "horizontal plan," under which

[19] Kenneth B. Haas, *Distributive Education*, pp. 156-160.

a series of short unit courses of increasing difficulty is provided. Through pre-arrangement, a series of short unit courses may be given so that it will accomplish approximately the same objectives as the interrelated program. He suggests that under the horizontal plan it may be desirable to divide a comprehensive course of 15 weeks into 3 parts of 5 weeks each.

By way of comparison the Michigan bulletin to which reference was made suggests evening courses of a series of units, classes meeting usually for periods of 90 to 120 minutes a session each week for 8 to 12 weeks.

PART-TIME COOPERATIVE TRAINING. Cooperative education has been discussed in Chapter 3. Cooperative part-time and part-time cooperative education are synonymous. It is merely a matter of preference whether part-time or cooperative is emphasized Enrollment in part-time classes in the field of distributive education is restricted to those who meet the following qualifications and such others as state or local requirements specify:

1. Fourteen years of age or over.
2. Regularly enrolled in a school
3. Employed in a distributive occupation for at least as many hours each day or week or other unit of time as they spend in school during the same unit of time.
4. Possess those personal and occupational characteristics required for the type of work which the instruction supplements
5. Able to profit by the instruction.[20]

The minimum age of fourteen years has been raised in many states and localities to sixteen, seventeen, or eighteen years.

Some states have special laws and rulings relating to the employment of part-time cooperative students. For example, in one leading industrial state the state department of labor and industry has ruled that such students, when enrolled in a properly supervised training course, may operate dangerous power-driven machinery at an age below that at which young workers in industry may operate the machines.

To be lawfully employed, cooperative students must con-

[20] United States Office of Education, Vocational Division Bulletin No. 211, pp. 33-8.

form to all state and federal laws relating to employment, including hours of work, compensation paid, safety precautions, sanitation and health, and the disposition made of the product For example, it is unlawful to exploit youths in training; they must be paid legal wages; the hours of work must meet legal requirements; and provisions for health and sanitation must be maintained. Pupils enrolled in part-time cooperative distributive occupational classes must be employed in a distributive occupation during the entire school year for a minimum of at least fifteen hours a week for at least thirty weeks.

The instruction is most effective, other things being equal, if it prepares the students for actual employment conditions and develops knowledges, skills, and appreciations that are needed in the occupation The United States Office of Education advocates "a certain amount of *background* business training" to supplement the vocational and related instruction appropriate for the occupation.

Placing Cooperative Students. One of the most important phases of part-time cooperative education, not only in distributive but also in other areas of vocational education, is the placement of students in employment where they are certain to get high-grade occupational experience having outstanding educational value. In distributive education this involves having suitable training standards, selecting stores of recognized standing, providing for the rotation of students, keeping them at jobs only so long as the jobs have obvious training value, providing for school representatives to inspect the training given, understanding that part-time students are not to be offered full-time jobs until they have completed their training, and arranging for the cooperating stores to employ a portion or all of the students after they have successfully completed their cooperative course.

Emick's study of cooperative training in retail selling shows that the coordinator, either alone or with someone else, is most frequently responsible for selecting the cooperating stores.[21] He found that in 25 of 30 cities

[21] United States Office of Education, Vocational Division Bulletin No. 186, by Glenn Oscar Emick, pp. 98, 108, 111.

studied the school authorities made the selection rather than the retail merchants' bureau. In 13 of the 25 cases the coordinator made the selection; teachers, city directors of vocational education, and high school principals also made selections, each in a small number of cases.

Both oral and written agreements are used with stores. Where written agreements are used they usually become a matter of record for the organizations concerned. Emick found these chief differences in written agreements:

1. Some are much more detailed than others.
2. Some have provisions for enforcing the agreement.
3. Some require the signatures of the interested parties.

The majority of the cities studied had only verbal agreements. In most cities the merchants were favorable to the cooperative plan. The objection most commonly voiced by employers was that the students were immature

MAKING DISTRIBUTIVE EDUCATION PRACTICAL. There are a number of ways of making distributive education realistic, functional, and practical. One way, previously mentioned, is to employ coordinators Another is to use the advisory committee toward that end A third is to develop part-time cooperative classes.

Some high schools have "model stores" in which actual store conditions are approximated. Other schools utilize school businesses, such as the school cafeteria. Students learn to take inventories; they assist the purchasing department in a variety of ways, keep records, operate cash registers, check materials, and study cost data.

Students are taught how to use their voices to best advantage, how to dress appropriately, and how to sell effectively. Merchants are inclined to judge the effectiveness of training programs by the proportion of students who become full-time employees in recognized sales establishments

NEED FOR FACTUAL INFORMATION The schools, especially through their classes in the practical arts, such as homemaking, applied art, and industrial art, are teaching students to select goods wisely. They frequently want to know about the wearing qualities and relative merits of goods purchased. To an increasing extent sales persons

should be able to give customers the information desired. When a young man considers a suit of clothes he may want to know how well it keeps a press, whether it has a tendency to become shiny quickly from wear, whether it is inclined to pick up lint, and whether it is likely to keep its shape under adverse conditions. A good salesman knows the answers and does not attempt to mislead the customer. Knowledge of raw materials, of processes of manufacture, and of the place of manufacture often adds interest to sales work and enables the salesman to sell more goods to more people with more satisfaction to everybody concerned.

DEVELOPMENT OF SELLING ABILITIES. Much can be learned about occupations through carefully observing those who are experts. Prospective sales persons may be taught the basic principles underlying salesmanship; they can learn what to look for in observing trained persons; and they can be given the opportunity under guidance to try their hands at these activities.

Many schools use "model stores" as a first induction. Of course, they have their limitations. The next step may be part-time employment, during which the trainee is expected to be on the alert for all that he can learn on the job. Promotions from simple to more difficult jobs may come in time Related study, observation, and discussion are likely to be helpful

Salesmanship is a science as well as an art and therefore calls for a combination of study and practice Conscientious study of successful practitioners and of the literature related to the work is likely to bring its just reward Selling abilities are developed through a variety of means.

SELLING HOME FURNISHINGS.[22] A bulletin entitled *How to Sell Home Furnishings* has been prepared by the Business Education Service of the United States Office of Education. It is intended for self-improvement on the part of those interested in buying home furnishings and those who desire to sell them.

The bulletin is arranged in units, each of which may serve

[22] United States Office of Education, Vocational Division Bulletin No. 216, by Roscoe R Rau and Walter F. Shaw, 1941

as the basis for a two-hour period of discussion and study. The content is planned for eight or ten group meetings.

The following are some of the units: the salesman as a business builder, the technique of salesmanship, salesmanship applied, style as a selecting factor, furniture woods—their origin and use, and selling sleep equipment. Other topics covered are an introduction to the art of interior decoration, floor coverings and fabrics, furnishing the living room, hall, and dining room, furnishing the bedroom, sunroom, kitchen, and breakfast room, and accessories that mean extra sales.

It will be noted that these units are very practical. They may be used to advantage by girls and women in home economics and by homemakers attending part-time classes as well as by individuals engaged in or preparing to engage in the distribution of home furnishings.

TRAINING RESTAURANT SALES PERSONNEL [23] The rapid development of the restaurant business in the United States has made restaurants a leading outlet for food produced on farms. Shortage of trained restaurant sales personnel has been and still is a major problem. Urbanization and war activities have materially increased the shortage of trained sales persons.

A bulletin entitled *Training Restaurant Sales Personnel* has been prepared by the Business Education Service of the United States Office of Education. The publication is informative and gives a good overview of the major problems and of essential subject matter in this special area of interest. The author has anticipated that progressive teachers will adapt the material to their local needs. The cooperation of the National Restaurant Association, of state distributive education divisions, and of others was secured in developing the bulletin. Many practical suggestions are incorporated in the study.

RETAIL TRADE.[24] As used in the federal census, retail trade includes establishments primarily engaged in selling

[23] United States Office of Education, Vocational Division Bulletin No. 222, by Ruth M Lusby, 1942

[24] *Sixteenth Decennial Census of the United States: 1940, Retail Trade: 1939*, Vol. I, Part 2, pp. 1-10.

merchandise for personal or household use and rendering incidental service. Included are eating and drinking places, filling stations, lumber and materials dealers, and vendors of motor vehicles To classify as a retail establishment, the major portion of the sales or receipts must be from such sources as were mentioned.

SMALL AND LARGER STORES. According to the census, more than 54 per cent of all retail stores in the United States did less than $10,000 of business during the year 1939.

Stores that sold $100,000 worth or more of goods in 1939 represented 3.5 per cent of the total number of stores but accounted for the sale of $17,810,916,000 worth of goods, or 42.3 per cent of total sales. The average sales of each such store were approximately $284,000 for the year.

The size of the average store increased approximately 15 per cent between 1935 and 1939. The total number of stores increased 19.9 per cent in the ten-year period from 1929 to 1939.

INDEPENDENT AND CHAIN STORES. In 1939 independent stores constituted 93 per cent of all stores, in 1935, 92 per cent. Their sales amounted to more than 77 per cent of total sales. The sale per store was close to $20,000 for the year.

Chain stores, though operating 17 per cent fewer stores than in 1929, increased their proportion of the total sales nearly 2 per cent in 10 years. Sales per chain store averaged close to $74,000 for the year 1939. The large national mail order units, of which 24 are included in one size group, averaged over $19,000,000 per unit for 1939.

MAJOR BUSINESS GROUPS.[25] In 1939 there were 1,770,355 stores in the United States. The average number of employees was 4,600,217. The total sales for the year exceeded $42,000,000,000. The payroll was $4,529,499,000.

[25] *Sixteenth Decennial Census of the United States, Census of Business*, Vol. I, Retail trade, 1939, Part 3.

The federal census recognizes fifteen major business groups:

1. Foods group
2. General stores with food
3. General merchandise group
4. Apparel group.
5. Furniture, household, radio group.
6. Automotive group
7. Filling stations
8. Lumber, building group
9. Hardware group
10. Eating places
11. Drinking places.
12. Drug stores.
13. Liquor stores (packaged goods)
14. Other retail stores
15. Second-hand stores

THE WHOLESALE TRADE.[20] A brief and yet comprehensive view of the wholesale trade may be obtained by examining the summary figures given by the Bureau of the Census. In 1939 there were in the United States 200,573 wholesale establishments There were 133,698 proprietors employing 1,561,948 persons. The payrolls amounted to $2,600,000,000. The sales exceeded $55,000,000,000 Payrolls were 4 4 per cent of the sales.

The stock on hand at the end of the year 1939 was worth $3,872,385,000 This was approximately 7 per cent of sales.

If sales efficiency could be increased 10 per cent through a nation-wide program of distributive education, considering the great size of the payroll—over $7,000,000,000 for retail and wholesale selling combined—a national saving in wages on the 1939 basis of $715,000,000 a year would result. The relatively small amount of federal and state money that is now being spent for distributive education is distinctly out of proportion to the need.

## *FOR DISCUSSION*

1 Why was business education not federally aided like other forms of vocational education under the Smith-Hughes Act?

2 Describe the development of business education and distributive education in the United States

[20] *Ibid*, Vol II, *Wholesale trade*, Table A, p. 4

3. Define distributive education and show its relationship to business education.

4 Distinguish between a vocational distributive subject and a related distributive subject Is the latter subject vocational?

5 Under what circumstances may such clerical subjects as bookkeeping and typewriting be considered parts of distributive education?

6 Cite the principal arguments in favor of distributive education under public auspices

7 What reasons are there for looking forward to considerable development in distributive education?

8. Compare the indirect provisions for retail selling under the Smith-Hughes Act with the direct provisions for distributive education under the George-Deen Act

9 Mention at least five specific requirements for federally aided distributive education

10. What kinds of part-time schools and classes in distributive education may be federally aided?

11 What is meant by "workers over 14 years of age who have entered employment"?

12 Describe homogeneous grouping

13 May a teacher serve as a coordinator? Explain.

14 Describe the steps that are frequently followed in organizing distributive education

15 Cite examples of desirable short units of instruction for distributive occupations

16 Discuss part-time cooperative education with special reference to distributive occupations.

17 Make specific suggestions about placing distributive education students in part-time employment

18 Discuss oral and written agreements.

19 How may selling abilities be developed?

20 Name ten or more major business groups, such as the foods group and the general merchandise group.

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# CHAPTER 19

## *Home Economics Education*

IMPORTANCE OF TRAINING FOR HOMEMAKING. The family is the basic unit of our social structure. In view of the vital relationships that exist between wholesome family life on the one hand and local, state, and national strength and progress on the other it is evident that training in family living is of supreme importance

Fitting girls and women for homemaking is a task that must not be left to haphazard methods Evidently parents and school authorities agree, for it has been found that home economics courses of one kind or another are to be found in approximately three out of four public junior and senior high schools The distribution varies. In some states the percentage runs close to 80, whereas in areas having less wealth and located in the open country the percentage of schools having such instruction is somewhat lower.[1]

Training for homemaking is important because it deals with every aspect of home and family living—for example, one state includes:

1. Food buying, cooking, serving, preserving, nutrition in health and illness.
2. The home location, type, furnishing, care, and maintenance.
3. Clothing. selection, care, construction, cost, and remodeling
4. Child care diet, care, rest, and play
5. Family budget. food, clothing, shelter, recreation, and savings
6. Social relationships: character building and community leadership.
7. Service: to family, community, and the nation at all times

In attempting to evaluate the contributions that home economics education makes, it is to be remembered that approximately 97 per cent of the women of the United States either become homemakers or fit into homes as members or guests of a family The proportion is so high that

[1] United States Office of Education, *Home Economics in Public High Schools*, Vocational Division Bulletin No 213, pp. 2-3

many persons believe that home economics should be required on a pre-vocational or practical arts basis of all girls in one or more years of the junior high school. The chief purpose of such instruction is to develop an appreciative understanding of homemaking and to supply at least a small amount of training that has definite exploratory, try-out, and other guidance values for a vocation of high social value.

Other factors being equal, we are likely to enjoy doing the things that we can do well. Home economics education may be regarded as instruction which helps individuals to do well what the vast majority will do The training received in school supplements what is given in the home. It is reasonably certain to be of value in helping to make home life what it should be—the source of inspiration and the foundation for that which is best in American life.

The references made about home economics have mentioned women and girls. To be sure, boys and men in larger numbers should have an appreciative understanding of homemaking. Particularly where the wife is gainfully employed, the husband should help with household duties. By and large, however, even though progress is being made in this direction, relatively few boys elect courses in home economics. In 1938-39 the enrollment was approximately 1 per cent of the boys registered in the schools.[2] In 1942 throughout the United States there was a total of 12,686 males enrolled in the home economics evening classes and 16,042 in the all-day home economics programs reimbursed from federal vocational education funds.

DEVELOPMENT OF HOME ECONOMICS. In the United States home economics had its beginnings in Massachusetts, where acts were passed in 1870 and 1872 requiring drawing and sewing to be taught in the public schools.

Cooking school classes were established in New York City and in Boston as early as 1874. Departments of domestic economy were introduced in some of the midwestern land-grant institutions, such as those of Iowa, Kansas, and Illinois, between 1869 and 1875.

[2] *Ibid*, p. 5.

The National Household Economics Association functioned from 1893 to 1903 and was then merged with the Household Economics Department of the General Federation of Women's Clubs.

The Lake Placid Conferences, sponsored by Mrs. Ellen H. Richards, well known to students of home economics as one of the great pioneers in the field, were held from 1899 to 1908. Since that time several national associations, as well as federal, state, and local organizations, are actively promoting homemaking education.

TYPES OF HOME ECONOMICS. Home economics is taught in secondary schools from two points of view. The first is that of general education with major emphasis upon developing insights, appreciations, and understandings important in home living. Here guidance and cultural values are sought. Teachers must have had extensive training in home economics, but they need not be certified by the state as vocational teachers. The tools, materials, and equipment may be essentially the same as are used in vocational programs, but the objectives of the instruction correspond to those of practical arts education, not vocational education. The time devoted to general home economics is usually much less in terms of hours a week, month, or year than in the vocational programs.

The other point of view from which home economics is taught is the vocational one. The purpose of vocational programs in home economics, as was mentioned in Chapter 1, is to fit individuals for the responsibilities of homemaking. Among other things this objective includes the development of emotionally mature individuals who are competent to carry on our democratic ways of life and to improve them During the war and in the crucial days of the postwar era, we need individuals who can withstand the unusual stresses of social and economic readjustment. The acquisition of practical knowledges and skills is but a part of the total requirement. Instruction in the care and guidance of children, nutrition, the selection and care of clothing, home management, education for marriage, and parent education are some of the aspects of homemaking

that appeal to girls and women who are of post high school age

Vocational homemaking education differs from general or pre-vocational home economics in (1) objectives; (2) time allotment; (3) standards; and (4) means and methods of instruction In general, these differences are those that distinguish vocational education from practical arts education [3]

Home economics instruction is also given in the form of post high school or terminal training and at the college and university levels.

Home Economics in the Elementary School. The school, working cooperatively with the home, may provide for children from the first grade on through the elementary school many experiences which will increase their appreciation of the home and help them to be effective family members. As a part of such projects as family living, food, clothing, and shelter, children may carry on activities in school which develop interests that will carry over into the home and help them in sharing home responsibilities. Here, too, they can establish habits of living, such as those necessary for health and orderliness, which are important in daily life Thus home economics has a contribution to make to the elementary school program as a part of general, cultural education.

Home Economics in the Junior High School. The major objectives of home economics in the junior high school years should dovetail with those of the school. Just as the junior high school exists largely to discover individual differences, to further exploratory and guidance purposes, and to give, so far as time permits, appreciational insights into a number of areas of learning, so home economics instruction at that level should emphasize corresponding goals and achievements in its area of special interest. Among the ways of attaining these objectives are developing appreciations concerning normal family life; using current interests that relate to home, school, and community; and

[3] See Chapter 2 and consult the alphabetical index.

having students participate in home projects as well as in school activities centering around home economics.

In the seventh grade the instruction may be made to focus upon activities of immediate interest. The following year the scope of the activities may be broadened to those that center around the home In the ninth grade the instruction may be built upon the interests of the two preceding years, keeping in mind the pupils' knowledge and abilities. Preparation for homemaking, including instruction in home management, child development, consumer buying, personal and family relationships, and nutrition, may well be provided for those whose formal schooling is about to be concluded.[4]

The following suggestions of a general nature for developing programs and courses may be helpful [5]

1. Seek information from P T A and other community organizations as to interests and needs of pupils.
2. Plan program of work for the year and keep it adaptable
3. Place emphasis on home economics as homemaking offering in short unit courses rather than semester courses in foods and clothing Determine needs by pupil's diary (week-end) questionnaire and community study through home visiting by teacher, and have these needs determine the length of units.
4. Introduce some units on nonlaboratory basis that can be taught with little or no equipment Such units would increase the value to home economics girls of guidance in solving their own problems.
5. Improve approaches in teaching by using case studies on the student's level
6. Increase the use of concrete and visual materials in all classroom teaching
7. Substitute demonstrations for some work previously done as individual laboratory work If possible, try out "exchange" plan with shop or art classes. This may make courses intensive units which will work out more satisfactorily in some high schools and provide a more comprehensive course Experimentation in this type of organization should be encouraged
8. Test for the measurement of growth in appreciation, improved attitudes, and ideals

VOCATIONAL HOME ECONOMICS IN THE SENIOR HIGH SCHOOL. Local conditions and desires determine whether

[4] Department of Public Instruction, Commonwealth of Pennsylvania, *Home Economics Education*, Bulletin 103, Harrisburg, Pennsylvania, 1935

[5] *Ibid*, p 18

the home economics program shall (1) be general; (2) be vocational; or (3) provide for both types If the program is general, the hours a week that students attend are usually fewer than when the program is vocational. Only the vocational home economics schools or classes may be aided under the Smith-Hughes and the George-Deen Acts. There may be, however, vocational programs developed without such federal aid Both general and vocational home economics schools and classes may be aided from state funds, although not necessarily on the same basis In both types of programs all-day, part-time, and evening classes may be conducted. Attendance upon classes may be voluntary or compulsory for all-day students, depending upon the wishes of the school authorities and the community and the provisions of school law.

Home economics programs, both general and vocational, and at the junior as well as the senior high school levels, differ from state to state in the length of time that is devoted to them A study by the Office of Education reveals that for the United States as a whole the length in years of home economics programs was as follows:[6]

| | *1 year* | *2 years* | *3 years* | *4 years* | *5 years* | *6 years* |
|---|---|---|---|---|---|---|
| Number of schools | 653 | 3318 | 3338 | 1951 | 490 | 447 |
| Per cent | 6 | 32 | 33 | 19 | 5 | 4 |

Overview of Vocational Homemaking Education.[7] From 1937 to 1942 there was an increase of approximately 500,000 students in federally aided vocational home economics education in the United States.[8]

In home economics the core of the program is that given in the all-day schools. Not only are there more students in all-day schools and classes than in other types, but the teaching load in terms of student-hours a week, month, or year is greater. From another angle part-time and evening classes

[6] United States Office of Education, *Home Economics in Public High Schools*, Vocational Division Bulletin No 213, p. 112.

[7] *Digest of Annual Reports of State Boards for Vocational Education, Vocational Division*, June 30, 1942

[8] Figures for each year from 1918 to 1942 may be found in United States Office of Education, *Digest of Annual Reports of State Boards for Vocational Education to the United States Office of Education, Vocational Division*, p 28

serve to strengthen the program by reaching a wider variety of age groups.

In 1942 there were more than 9000 centers operating federally aided day school programs. Evening and part-time classes were held in more than 5000 centers More than 10,000 day school teachers and 7000 teachers of evening and part-time classes gave homemaking instruction to 954,000 individuals. Federally aided teacher-training courses in vocational home economics were given in or through 106 institutions of higher learning [9]

Good programs include provision for part-time and evening classes as well as for those in all-day schools or departments. The strength of home economics programs rests upon thorough cooperation, including that of parents, homes, advisory committees, and schools.

Vocational home economics education is needed to supplement, extend, and enrich the experiences in homemaking which girls and women get at home Properly taught, it serves as a basis for bringing about a deeper appreciation of the opportunities and challenges of homemaking at its best. It also helps to achieve a better understanding between young people and adults

REQUIREMENTS FOR VOCATIONAL PROGRAMS IN HOME ECONOMICS. The major requirements that need to be met in order that a program may be entitled to state or federal aid or both are set forth in the state plan for vocational education, copies of which are procurable in limited number from the State Department of Public Instruction In brief, the requirements include the approval of the state board for vocational education, through the state director, state supervisor, or other member of the professional staff, of such factors as:

1 Public supervision and control of program.
2. Qualifications of home economics teachers.
3 Qualifications of students, including minimum age
4 Suggestive curriculums and courses of study.
5. Plant and equipment.
6 Length of school term.
7 Methods of instruction
8 Home projects.
9. Authorization to operate state-aided program.

[9] *Ibid.*

During the first three years beginning with 1918, state plans were filed annually with the Federal Board, now the United States Office of Education. The plans for the third year were approved for three years, and thereafter plans have been submitted for five-year periods. Amendments can be submitted at any time the state wishes.

PLANNING HOME ECONOMICS EDUCATION. A study dealing with planning home economics education was made by Druzilla Crary Kent.[10] In her judgment the administration of home economics education throughout the southern region has resulted in a diffusion of leadership rather than a concentration of it in a purely administrative group.

She recommends that definite instruction relating to planning be given to teachers in training. State plans need to be developed upon a more objective basis with more attention to specific items. It is her suggestion that state plans be set up so as to permit choice of programs and that under certain conditions local communities be permitted to submit their own plans for state approval

It is likewise her belief that definite provisions should be made for evaluating the results or outcomes in terms of the objectives and provisions of the plans, that specific achievements in local communities be reported, and that in future legislative acts dealing with home economics, details of school organization and administration be avoided, but that provisions be made that will assure the attainment of high standards under a variety of conditions.

CURRICULUM AND COURSE OF STUDY DEVELOPMENT.[11] The Office of Education gives considerable attention to assisting states in curriculum development in home economics. Rather than have courses of study produced by a few experts, it is suggested that a wider participation, including the instructors who are to teach the material, be used. Although a certain amount of core content may be appropriate for classes, the question may be raised as to

[10] Druzilla Crary Kent, *A Study of the Results of Planning for Home Economics Education in the Southern States*, Teachers College Contribution to Education No 689, Columbia University, 1936

[11] United States Office of Education, *Curriculum Development in Education for Home and Family and Family Living*, Misc. 2087, June, 1938

how much standardization is desirable The Office of Education takes this view: "Only as courses of study are looked upon as source materials are they likely to improve teaching."

If curriculum studies and course making are preceded, paralleled, and followed by programs centering around the use of elements and portions of courses of study that clearly meet local requirements, creative teaching is reasonably certain to be the outcome. Well-dircted state and city-wide plans for participating in course making and course improvement are likely to be of distinct value. Administrators can help through active leadership and by making necessary financial and time arrangements.

Pupil participation with teachers has been found worth while. Cooperation with other subject-matter groups has advantages. Lay participation, particularly of parents, is known to be helpful Curriculum and course making activities need to be regarded as continuous rather than intermittent functions.

It is of special importance that teachers be conscious of social and economic changes that affect family life education. There are social, economic, intellectual, cultural, and spiritual interests and participations for youth and for older individuals. Education for family living must stress cooperative living and not only national but also international understanding.

Curriculum workers in Georgia decided to recommend the following seven major problems or basic aspects of living for core content [12]

1. Maintaining physical, mental, and emotional health.
2. Earning a living
3. Performing the responsibilities of citizenship
4. Utilizing and controlling the natural environment for individual and social needs
5. Receiving and transmitting ideas and transporting persons and commodities
6. Expressing aesthetic and spiritual impulses
7. Utilizing education as a means of acquiring and transmitting the social heritage, and as an agency for conserving and improving human and material resources

[12] *Ibid.*, pp. 42-8

The following interests are frequently considered by home economics workers to be appropriate at the levels designated:

| | |
|---|---|
| Early junior high school | Sharing in family life. |
| Later junior high school | Finding some personal and social adjustment. |
| Early senior high school | Assuming responsibility in home and school life |
| Later senior high school. | Establishing a home, preparing for a vocation, and relating the home to the larger community. |

HOMEMAKING COTTAGES AND EQUIPMENT. Many schools are finding it possible to provide housing that corresponds to that of typical American homes. Instead of using classrooms and laboratories of the conventional type, these schools are providing homemaking cottages. Some of them are of new construction, whereas others are remodeled structures In either case the objective is to provide housing that meets modern standards of safety, health, suitability to purpose, and esthetic appearance, without undue expense.[13]

Experience has shown the wisdom of working through proper channels when housing is considered. In some states all plans and specifications require the approval of the State Department of Public Instruction before alterations are made or new work is undertaken. Some state departments issue material of considerable help to those planning homemaking cottages [14]

THE HOME PROJECT Changing social, economic, political, and vocational conditions have resulted in and in all probability will continue to bring about needed changes in family living and in homemaking education. From the beginning of vocational education as a public responsibility one of the vital requirements has been that the instruction shall prepare for actual needs in the vocations concerned. The home is the place where homemaking is put to the test.

[13] See Office of Education, *Space and Equipment for Homemaking Instruction*, Vocational Division Bulletin No 181, Washington, D. C, 1935.

[14] See Pennsylvania, Department of Public Instruction, *Homemaking Cottages*, Bulletin 322 Harrisburg, Pennsylvania, 1939

Consequently, projects carried on in the home and involving organization, management, and the perfection of skills and adjustments to family situations are essential to homemaking education.

The home project as a vital part of vocational homemaking education has become popular, especially since 1927. Experience with concrete problems in home living helps to broaden the insight and experience of students taking home economics. Classroom and laboratory conditions are usually different from those prevailing in homes Students need training in assuming major responsibility for typical household duties. They need preparation for the time when mother or teacher will not be available to answer questions or to show how something is done

The home project is to some extent an outcome to be realized. But in a greater degree it is a means of developing each individual in fundamental homemaking skills, knowledges, habits, attitudes, and ideals

Interest is an important element in selecting a home project The girl should feel that she would like to do excellently whatever she decides to make her home project. This matter of learning to do in an excellent manner what we need to do deserves more attention than is commonly given to it Interest is likely to grow with ability to do work well.

The home project should receive the cooperation of other members of the family. Family needs and finances should be considered. The time required and the maturity, skill, and perseverance of the student are other factors to be weighed There should be definite correlation with school work. The result should be satisfying to the student, should render service to her, and should have a favorable effect on home and family life

Knowledge of the pupil, the home, and of current trends and good practices is necessary in order that the teacher may guide the student wisely in the selection of suitable home projects Both tact and resourcefulness are often needed to obtain the necessary information about home conditions. Sometimes personal record sheets are used. Some are filled out by the students. Typical data called for

include names and occupations of parents and names and ages of children. Other record sheets may be filled out by teachers after home visits have been made There need be no standardized form unless it is preferred. A concise report of pertinent facts that throw light upon the kind of home life and upon the student is held to be worth while.

When the homemaking instruction deals with real home problems, home projects become an integral part of the educational program. They deserve systematic attention, which should not, however, lead to teacher domination. The home project at its best is something which the girl herself purposes to do, plans, carries out, and evaluates. The teacher, the other pupils, and the mother have their parts, but the decisions, the planning, and the work and its evaluation should be done by the learner

In home projects in homemaking, as well as in agriculture, there should be definite planning. The objectives must be clear. A careful plan of work needs to be developed in which each successive step should be clear. Checking is needed at frequent intervals. Nothing should be taken for granted. An adequate record system should be used True costs should be figured accurately. Time records are essential when the project deals with time management. Sources of help, such as bulletins, magazines, and newspaper articles, deserve recording.

A teacher's guide sheet for directing home projects was developed some years ago by a committee on teachers' responsibilities and difficulties, in connection with the North Atlantic regional conference. Because of its suggestive value now, as then, it is reproduced in Table 15.

Present-day practices give somewhat more attention than this guide emphasizes to pupil-teacher planning and evaluation throughout the project to the end that the pupil becomes increasingly independent in judging her own progress and revising her procedures when needed.

FOOD AND NUTRITION IN RELATION TO HEALTH. More is known today than formerly about food in relation to health. The significance of food as a body builder and as a conserver of well-being is a challenging area of learning.

## *Table 15*

## TEACHER'S GUIDE SHEET FOR DIRECTING HOME PROJECTS*

| Steps in a Project | What to Do at Individual Conferences | Goal to Be Attained by End of Individual Conference or Conferences | Goal to Be Attained through Home Contact at This Time |
|---|---|---|---|
| 1 Selection of problem | Teacher finds [illegible]<br>home cooperation how project will fit into family plans and habits<br>Interests of girl<br>What she enjoys doing, how she uses her free time<br>What she can do<br>Her background in home economics and her range of home experience<br>Time available for project work<br>Distance from school, time at home on school days and week-ends<br>Equipment and money available in home<br>Teacher and girl discuss how project will add to pupil development, new knowledge and skill books and magazines and other sources of material that would be helpful | Girl selects a definite project and has it stated in writing<br>Prepares a preliminary list of sources of information and help | To get acquainted with the family and home background and daughter's activity in home |
| 2 Making of plan | Teacher and girl decide what a plan should include<br>Statement of problems in detail including things to be done, to be learned, to be tried, how to arrange home schedule to accomplish work<br>Steps in procedure definitely decided<br>Girl is given definite sources of information including reading matter, excursions, class work, and conference with mother and others | Girl has written outline of procedure to be followed and understands how plan is to be used<br>Teacher discovers opportunity for introducing into class work material which will be of help in specific home projects | To explain to mother the procedure, and check on how workable the plan is<br>Get suggestions from mother on development of project<br>This contact may be made through a home visit, telephone call or letter, meeting at church, school, or other places |
| 3 Carrying on the project | It is desirable occasionally to have class reports on progress and problems of home projects<br>Teacher checks report of work and discovers difficulties for extending problems<br>Teacher stimulates further interest and gives encouragement for project, points out new sources of information to meet current problems<br>Teacher helps in working out modification of original plan | Teacher knows progress of home project and difficulties being faced, and readjusts the plan for further work<br>Stimulates the girl with desire to make definite progress<br>Develops an increasing independence in the girl in her approach to problems arising | To check on progress and give definite help on job<br>This contact might be through a home visit, or through some meeting with one of the family |
| 4 Completing the project | Teacher goes back to original plan, and checks on what has been done, new information acquired, evidences of development of skill in order to ascertain completion of project<br>Points out where and how work could have been improved<br>Discusses other ways in which acquired information and abilities may be used<br>Leads girl to see new problems growing out of projects, and incites interest in further study<br>Discovers further needs of girl and notes where special class activities may benefit her<br>Discusses with girl the best way to record the work done, and incite a desire in the girl to make a complete, accurate, and interesting report | Teacher and girl recognize that project has been completed<br>Teacher notes where special needs of the girl can be met by class responsibilities and activities<br>Girl feels satisfaction and pleasure from the completion of the job, and is stimulated to further endeavor<br>Girl understands procedure to be followed in project report | To check on finished work<br>To get reaction of mother or other family members on the work done and the procedure followed<br>To discover and point out benefits to girl and other family members as a means of stimulating further effort<br>To discuss further project work with mother and enlist continued cooperation of family members<br>Probably a home visit would be advisable |

* Pennsylvania, Department of Public Instruction, *The Home Project in Homemaking Education*, pp 165-6

Among the information available is much that deals with vitamins. Care of the digestive mechanism, the making of menus, and the cost of food are other related units

The modern homemaker needs not only a general understanding of foods and food values but of specific applications of this information, such as food for the baby, for young children at various ages, for adolescents, for adult men and women, and for the sick and convalescent. Surely such topics are worthy of much study over a long period of time. That which can be given in classes in homemaking must be regarded as laying a foundation and building an acquaintanceship and interest in scientific facts of considerable value.[15]

SCHOOL LUNCH PROGRAMS. During wartime and in the postwar period many practical problems arise relating to ways and means of providing school lunches that conserve health and well-being at low cost. Since the fall of 1941 the United States Office of Education has issued several publications relating to school lunches.[16] Rising prices and the shortage of skilled workers and in some sections of certain foods have added to the difficulties encountered. In spite of them the school lunch program has grown rapidly in recent years.

Costs have been lowered in some places by reducing the number of items for sale and by offering a balanced plate lunch with restricted choice, as an alternative Equipment which cannot be purchased may be made in part from such material as is available. In some instances unit costs are reduced by getting all children and teachers to eat in the cafeteria and by using volunteer help and pupil assistance. Gifts of food from organizations and individuals may be made, particularly to provide healthful lunches for pupils who cannot afford to pay for them entirely.

The Nutrition Committee of Montgomery County, Rock-

[15] See Mary Swartz Rose, *Feeding the Family*, Fourth Edition, The Macmillan Co, New York, 1940

[16] Such as United States Office of Education, *Making School Lunches Educational*, Nutrition Education Series, Pamphlet No 2, and *School Lunch Management*, Nutrition Education Series, Pamphlet No 3, 1943.

ville, Maryland, set up the following purposes:[17]

1. Supervision of all cafeterias by a trained person
2. The service of only foods that are best for body building and the health of children.
3. Provision for all children to eat in the cafeterias, so that the lunch period can be more effectively supervised
4. An understanding of the educational values of the school lunch by children, teachers, and parents as part of the school program is as important as any item in the curriculum.
5. An understanding and appreciation of cafeteria services and food-health relationships as part of the regular school curriculum.

BETTER FARM FAMILY LIVING. Teachers of homemaking education can do much in cooperation with teachers of vocational agriculture in teaching farm families how to live more healthfully. Sometimes farming is too specialized and food for the family not varied as much as it should be. A number of helpful suggestions for teachers in developing joint programs on foods are made in a leaflet entitled *Negro Farm Families Can Feed Themselves*[18] Many suggestions made in this leaflet are equally applicable to white and other races The bulletin advocates that farm families produce and use their own meat, milk, and butter supply and other live-stock products, a variety of vegetables, a syrup supply, cereal grain foods, and a variety of fruits. Conserving and storing the food may be studied to advantage.

CLOTHING PLANNING AND CONSTRUCTION. A good deal of resourcefulness has been shown by parents, teachers, and more advanced students in adapting available clothing materials to new uses. The fundamentals of sewing and of costume design and alteration as taught in home economics classes are exceedingly useful.

Work clothes designed to meet safety and comfort requirements for women workers in industry, on farms, and in homes are helping to speed production The Bureau of Home Economics of the United States Department of Agriculture has cooperated by making a number of designs available and by helping industries to adopt federal designs

[17] Nutrition Education Series, Pamphlet No 3, Office of County Superintendent of Schools.

[18] United States Office of Education, Leaflet No 8, 1942, 53 pp

to provide official uniforms for their employees Easy-to-launder fabrics are given preference

MANAGEMENT IN HOMEMAKING EDUCATION. Underlying specific policies, principles, and practices a socially sound philosophy is needed All members of families develop fundamental convictions and beliefs. One of the purposes of homemaking education is to consider certain convictions about family living and to give thought to how the best heritage of the race may be perpetuated and improved.

We may divide the activities of human living into four categories· work, play, love, and worship. Home management is related to each of them

Changing attitudes toward authority are evidenced in the home and to some extent are molded there The trend from external to internal authority, from parent control to self-control, is reflected in better-managed homes, schools, and playgrounds

If young people are to get a right start in cooperative, democratic living, such a beginning needs to be made in the home long before the child enters school. Home management calls for practical applications of psychology, sociology, education, and economics. A broad educational foundation for home management is highly desirable.

Through home management and teaching, probably more through example than by word of mouth, attitudes toward such basic life-needs as work, play, love, and worship are nurtured and built into the nervous systems and characters of youth

Home management is planning, directing, guiding, and coordinating the use of human and material resources to the end that each member of the family shall be of maximum service to society To do this well is indeed a big order. Goals, standards, policies, habits, knowledge, skills, and attitudes and ideals are interwoven in home management. Physical, mental, emotional, and spiritual development are involved

The homemaker is not only parent and teacher but also counselor, decision maker, evaluator, and highest source of appeal, all in one, to the child. In addition, she is the

determiner of values, the purchaser of goods, the custodian of properties, the conserver of family income, and the expender of a fair portion of it

Among the personal qualities needed are love for children, judgment, understanding of human nature and of contemporary life, endless perseverance, and managerial abilities. The selection of the home, food, clothing, shelter, friends, and church is another managerial responsibility.

FRIENDSHIPS, COURTSHIP, AND MARRIAGE. It is only natural that young people should be interested in making friends, in courtship, and in marriage It is of the utmost importance to select friends wisely, to keep old ones, and make new ones and to know something about what courtship means and what marriage demands For this reason it is gratifying to see how progressive teachers of homemaking, as well as some other teachers, are making it possible to study courtship and marriage Few if any topics offer greater opportunity for practical social service. What is happening to American families today will have a direct and fundamental relationship to individual, family, and national welfare in the years ahead

The permanence and strength of the family as our basic social unit, as well as that of our country as a whole, will depend significantly upon the ideals, attitudes, and habits that are developed before and during marriage A subject of study so far-reaching in its effects deserves to be taught unusually well. Teachers of sound judgment, good training, and demonstrated ability should be used The topics are not only timely but are also of unusual interest to youth, as is revealed in the study made by Dr Laura W Drummond, Director of Home Economics, at the Pennsylvania State College.

INSTRUCTION IN FAMILY RELATIONSHIPS [19] Dr. Drummond studied the problem, "What certain undergraduate students and alumni of two Pennsylvania colleges consider important material in instruction on marriage and family."

[19] Laura W. Drummond, *Youth and Instruction in Marriage and Family Living*, Teachers College Contribution to Education No 856, Columbia University Bureau of Publications, 1942, 186 pp

Her findings are based in part upon returns received from 320 freshmen, 164 seniors, and 148 alumni These individuals made a total of 2752 suggestions Approximately one-fourth of the suggestions dealt with sex adjustments Other topics of interest mentioned were, in descending order of frequency, premarriage problems, including dating, courtship, and choice of mate; accord in marriage and family relationships; family economics, with special reference to budgeting; child guidance and the role of the child in the family; adjustments between generations; avoidance of discord; religion in family living; and the family as a social institution

Dr Drummond concludes from her study that young people believe instruction in marriage and family living to be very desirable. She found that human relationships rather than material resources were matters of vital concern to young people and believes that problems in family relationships should be taught in homemaking schools and departments.

School Health Education. "Health education is the sum of experiences which favorably influence habits, attitudes, and knowledge relating to individual, community, and racial health."[20] By school health education is meant that part of the broader program of health education which is given by the schools.

School health education is of interest to and is a part of the responsibilities of many kinds of teachers working at various levels Securing and maintaining good health clearly has a direct effect upon family living and consequently should be part of home economics education. Home economics has contributed much to the improvement of health and to reduction of the general death rate with a resulting increase in the average length of life. The decline in infant mortality and of deaths from diphtheria, typhoid fever, tuberculosis, and other diseases is due in part to cooperation of homemakers with the medical profession and the schools.

Among the things the schools can do and are doing are providing healthful school living, providing for the preven-

[20] Dr Thomas D Wood, quoted in *Health Education*, p 16

tion of accidents and illness, teaching first-aid, providing coordinated health instruction, encouraging periodic health examinations, giving special attention to medical and dental care, arranging special health education programs, and providing professionally trained health supervision.[21]

BUREAU OF HOME ECONOMICS, UNITED STATES DEPARTMENT OF AGRICULTURE[22] A Bureau of Home Economics was created in July, 1923, by executive order of the Secretary of Agriculture in keeping with an act of Congress.

For more than twenty years Dr Louise Stanley has been chief of the bureau. Under the Office of the Chief there are six divisions. Three of these, the Family Economics Division, the Information Division, and the Business Administration Division, are located in the South Building of the Department of Agriculture, Washington, D C.

Three other divisions, the Foods and Nutrition Division, the Textiles and Clothing Division, and the Housing and Equipment Division, carry on their research activities in laboratories at the Beltsville, Maryland, Research Center, about fifteen miles from the Capitol.

The professional staff of the bureau is made up of chemists, physicists, a physiologist, nutritionists, technologists, economists, statisticians, and trained home economists. Positions on the staff are filled through Civil Service. For the year 1943, $368,890 was appropriated for research.

The activities of the bureau are many. Among them may be mentioned:

1. Conducting research in the science of human nutrition.
2. Providing scientific facts needed in meeting food problems of the war and postwar periods.
3. Determining the vitamin content of foods
4. Developing formulas for dehydrated foods.
5. Conducting research relating to the shipment of dried meats, eggs, and other foods
6. Emphasizing the importance of all the ways of conserving food, e.g., drying, freezing, storing, pickling, brining, canning, and preserving.

[21] *Ibid.*, pp 34-5.

[22] United States Department of Agriculture, Bureau of Home Economics, *The Bureau of Home Economics in Wartime*, September, 1942, 24 pp. (In 1943 the name of this bureau was changed to Bureau of Human Nutrition and Home Economics.)

7. Supplying basic recipes and reasons for them.
8. Low-cost cookery· ways of cooking meat thriftily, use of dried fruits, dried beans and peas, and care of green vegetables.
9. Remodeling and reclaiming old garments.
10. Helping consumers conserve their clothing and their household fabrics
11. Making war work clothes for women
12. Testing hosiery fabrics
13. Saving cottons from mildew.
14. Measuring children to determine clothing sizes more scientifically
15. Determining the relation of clothing to health.
16. Discovering how to fight the chief enemies of rubber. heat, sunlight, grease, and oil.
17. Evaluating modern cleaning methods.
18. Fighting food waste at home
19. Testing quick freezing equipment for farm homes.
20. Developing standards for home as a working plant.

The Bureau of Home Economics, United States Department of Agriculture, makes available free many popular printed publications. Individuals may receive ten free bulletins. Teachers may receive a total of one hundred free bulletins (not more than five of any one). Bulletins are not distributed free directly to students There is a charge for some bulletins.

All bulletins are on sale by the Superintendent of Documents, Government Printing Office, Washington, D C. A list of available bulletins, both free ones and those for which there is a charge, may be secured from the Office of Information, Department of Agriculture, Washington, D. C. Orders should be sent directly to the Superintendent of Documents.

For research workers and other interested persons, the bureau publishes a series of publications dealing with foods and nutrition, textiles and clothing, economic studies and housing, family income, and family expenditure reports

State and Local Supervision. Each state and insular possession has its supervisor of home economics operating in accordance with the provisions of the state plan for vocational education. Promotional supervision and helping local directors and teachers to improve their services take much of the time of the state supervisor.

Where local administration and supervision of a high

order are maintained, the state supervisor spends relatively little of her time, where new schools are about to be organized and where special problems have come up, the state supervisor gives all the time that is possible. Although public education is admittedly a state function, it is, nevertheless, good policy to encourage local boards of education to use their resources as fully as possible, and the state wisely delegates more and more responsibilities to local school boards. Close cooperation between the personnel engaged in homemaking education and in other forms of practical arts and vocational education is highly desirable. Such relationships are not assured but are definitely furthered through membership in state vocational associations in which all types of vocational and practical arts education are represented

HOME ECONOMICS SERVICE OF THE UNITED STATES OFFICE OF EDUCATION. In Chapter 6 there appeared an overview of the organization of the United States Office of Education, including a chart showing how home economics fits into the plan. The Chief of the Home Economics Service functions as one of the chiefs of services directly responsible to the Assistant United States Commissioner for Vocational Education. Reporting to the Chief of the Home Economics Service are four regional agents, each of whom is in charge of the service to approximately twelve states Although some contacts are made directly between state directors of vocational education and the Assistant United States Commissioner for Vocational Education, many others are made with either the Chief of the Home Economics Service or with the regional agent

Special agents may devote their full time to specified assignments, which may be carried on in one or more of the four administrative regions Contacts made by representatives of the Office of Education are usually made through or with the knowledge of the regional agents. These agents, because of their familiarity with the states in their service area, may be of considerable help in advising individuals where they may find what they want or where and how they can spend their time to best advantage

For purposes of research in home economics the library of the Office of Education has distinctly superior advantages. For those who cannot go there the Office of Education maintains a library service.

The work of the Home Economics Service takes a variety of forms Among them are consultation; supervision and administration; research; surveys and investigations; preparing reports, bulletins, leaflets, and miscellaneous publications; promotional activities; contacts with national and state associations, cooperation with federal and state groups; serving in leadership capacities of various kinds; preparing budgets and estimates for Congress; and disseminating professional information relating to homemaking education.

## *FOR DISCUSSION*

1. Discuss the importance of homemaking education as you see it.
2 Trace the development of home economics in the United States from 1870 to the present
3 Distinguish between the purposes of home economics as general and as vocational education
4. What place has home economics in the elementary school?
5 Compare the objectives of home economics in the junior high school with those of general home economics in the senior high school
6 How long, in terms of years, are home economics programs in the United States?
7. Present an overview of the enrollments in home economics since 1917.
8 What are the chief requirements of programs of vocational homemaking education?
9. Make several suggestions concerning the planning of homemaking programs
10 What are your views concerning curriculum development in home economics?
11 Describe homemaking cottages and evaluate their contribution to modern homemaking instruction
12. Where would you look for information regarding laboratory equipment?
13. Discuss fully the home project in home economics.
14 Show relationships between food and nutrition and health.
15 Explain the objectives of school lunch programs and tell how some of the practical problems involved may be met.
16. How may better farm family living be furthered through homemaking education?
17 What are progressive teachers of home economics doing about teaching individuals to make, repair, remodel, and maintain clothing?
18. Explain what is meant by home management and contrast poor with good practice

19. What are your views regarding the teaching of friendship, courtship, and marriage to young people in the junior and senior high schools?

20 Why give instruction in family relationships?

21. What may the schools do to further school health education?

22. Describe the place and functions of the Bureau of Home Economics of the United States Department of Agriculture

23. Explain how state and local supervision of home economics functions in your state

24. Mention by name the persons who administer and supervise home economics in your state office, regionally, and locally.

25. Describe the Home Economics Service of the United States Office of Education

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*House and Garden*, published monthly by the Condé Nast Publications, Inc., Greenwich, Conn Price, $3 00 a year.

*Hygeia*, published monthly by the American Medical Association, 535 N. Dearborn Street, Chicago Price, $2 50.

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*Journal of Home Economics*, published monthly except July and August by the American Home Economics Association, Mills Bldg, Washington, D. C. Price, $2 50 a year (Active members of the American Home Economics Association pay $3 00 national dues in addition to state dues and receive the *Journal of Home Economics* )

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# CHAPTER 20

## *Trade and Industrial Education*

POPULATION TRENDS. As a background for discussing trade and industrial education, some basic data taken from the federal census should be examined. These data have implications not only for trade and industrial education but also for other forms of vocational education and indeed for social welfare and economic security in their broader applications.

Table 16 shows the population of the continental United States at ten-year intervals from 1890 to 1940, inclusive.

*Table 16*

POPULATION OF THE CONTINENTAL UNITED STATES, 1890-1940*

| *Year* | *Population* | *Per Cent Increase over Preceding Census* | *Population per Square Mile* |
|---|---|---|---|
| 1940 | 131,669,275 | 7 2 | 44 2 |
| 1930 | 122,775,046 | 16 1 | 41 2 |
| 1920 | 105,710,620 | 14 9 | 35 5 |
| 1910 | 91,972,266 | 21 0 | 30 9 |
| 1900 | 75,994,575 | 20 7 | 25 6 |
| 1890 | 62,947,714 | 25 5 | 21 2 |

* *Sixteenth Decennial Census of the United States 1940, Population*, Vol. I, Table 2, p 6

Within the span of fifty years the population has more than doubled, and the density of population, measured per square mile, has increased in the same ratio.

The percentage of increase from decade to decade has fallen off. It is to be hoped that this trend will change In this connection quality as well as quantity of children born must be taken into consideration. Unfortunately, the rate of increase in families where children would have superior advantages is smaller than in those who are living at the lower income levels It should not be overlooked that the biological strength of the people is an important factor in race survival and improvement.

Another fact to be considered is that in industry as well as on the farm workers produce more per man-hour of work. Table 17, Indexes for Population, Wage Earners, and Pro-

*Table 17*

INDEXES FOR POPULATION, WAGE EARNERS, AND PRODUCTION: 1899 TO 1939*

| *Census Year* | *Population* | *Wage Earners* | *Production Quantity*† | *Production per Wage Earner* |
|---|---|---|---|---|
| 1939 | 175 | 187 | 373 | 199 |
| 1937 | 172 | 194 | 376 | 194 |
| 1935 | 170 | 163 | 301 | 185 |
| 1933 | 168 | 131 | 228 | 174 |
| 1931 | 166 | 140 | 262 | 187 |
| 1929 | 162 | 190 | 364 | 192 |
| 1927 | 158 | 178 | 317 | 178 |
| 1925 | 154 | 178 | 298 | 167 |
| 1923 | 149 | 186 | 280 | 151 |
| 1921 | 145 | 147 | 194 | 132 |
| 1919 | 140 | 191 | 222 | 116 |
| 1914 | 131 | 147 | 186 | 127 |
| 1909 | 121 | 139 | 158 | 114 |
| 1904 | 110 | 115 | 124 | 108 |
| 1899 | 100 | 100 | 100 | 100 |

* *Sixteenth Decennial Census of the United States 1940, Manufactures,* Vol. II, Part 1, Table 3, p 20

† Compiled by Dr Solomon Fabricant for the National Bureau of Economic Research.

duction, makes this clear. The index was compiled by Dr. Solomon Fabricant and reproduced in the Census report with his permission. He took conditions of 1889 as a base, represented by 100. By 1939 the population had increased 75 per cent and the number of wage earners 87 per cent. In addition each wage earner produced approximately twice as much per day, month, or year as was produced in 1899.

It is generally known that a relatively gradual shift from rural to urban life has been in operation for many years. Table 18 shows the trend in ten-year steps from 1890 to 1940, inclusive. Within that span of time the urban population has increased 11.4 per cent For the United States as a whole this shift is much less than for specified local communities, some of which have lost and others gained greatly as a result of the war effort or because of other factors

The combination of population increase, population shifting, and increased production per worker calls for careful analysis and cooperative action on the part of labor, employers, and government.

*Table 18*

URBAN AND RURAL POPULATION OF THE UNITED STATES, 1890-1940*

| Year | Per Cent of Total Urban | Rural |
|---|---|---|
| 1940 | 56 5 | 43 5 |
| 1930 | 56 2 | 43 8 |
| 1920 | 51 2 | 48 8 |
| 1910 | 45 7 | 54 3 |
| 1900 | 39 7 | 60 3 |
| 1890 | 35 1 | 64 9 |

* Based on *Sixteenth Decennial Census of the United States 1940*, Vol I, Table 6, p. 18

IMPORTANCE OF MANUFACTURING. The social and economic welfare of the United States is served best when people in all areas and in all vocations contribute their maximum through socially useful employment. Agricultural, business, trade and industrial, and other workers are interdependent. In previous chapters the importance of some of these areas of occupations has been set forth In this chapter it remains to deal with manufacturing and trade and industrial problems

DISTRIBUTION OF FACTORY WAGE EARNERS. During the ten-year period covered by the Census of 1940 several trends are revealed The number of establishments employing 5 workers or fewer decreased from 3 2 to 2.6 per cent. Those employing from 6 to 500 workers increased in numbers, and those employing more than 500 workers each decreased somewhat. Of course, those trends appeared during a period in which pre-war conditions prevailed.

The distribution of factory wage earners according to the number employed in establishments is shown in Table 19; a somewhat different summary of wage earner size groups is shown in Table 20. The number of wage earners engaged in manufacturing per 1000 population is given by

states in Fig. 12. This figure shows that Rhode Island employs the largest percentage of its population in manufacturing and that North Dakota is least industrial.

*Table 19*

DISTRIBUTION OF FACTORY WAGE EARNERS ACCORDING TO THE NUMBER EMPLOYED*

| *Size Class Number of Wage Earners* | *Per Cent of Total Wage Earners* | |
|---|---|---|
| | 1939 | 1929 |
| Total | 100 0 | 100 0 |
| 1 to 5 | 2 6 | 3 2 |
| 6 to 20 | 6 9 | 6 7 |
| 21 to 50 | 9 7 | 9 2 |
| 50 to 100 | 10 8 | 10 1 |
| 101 to 250 | 18 7 | 17 9 |
| 251 to 500 | 16 1 | 15 1 |
| 501 to 1000 | 13 0 | 13 3 |
| 1001 to 2500 | 11 9 | 13 0 |
| 2501 or more | 10 5 | 11 5 |

* *Sixteenth Decennial Census of the United States 1940, Manufactures,* Vol. I, p. 11.

NUMBER OF INDUSTRIAL ESTABLISHMENTS. Approximately 184,000 industrial establishments, varying from those that employed no workers to others which carried 2500 employees or more on their payrolls, were recorded

*Table 20*

SUMMARY OF WAGE EARNER SIZE GROUPS: 1939*

| *Number of Wage Earners per Establishment* | *Number of Establishments* | *Per Cent of the U. S. Total* |
|---|---|---|
| Total | 184,230 | |
| No wage earners | 8,315 | 4 5 |
| 1 to 5 | 75,930 | 41 2 |
| 6 to 20 | 49,015 | 26 6 |
| 21 to 50 | 23,646 | 12 8 |
| 51 to 100 | 11,908 | 6 5 |
| 101 to 250 | 9,458 | 5 1 |
| 251 to 500 | 3,653 | 2 0 |
| 501 to 1000 | 1,495 | 0 8 |
| 1001 to 2500 | 634 | 0 3 |
| 2501 and more | 176 | 0 1 |

* *Sixteenth Decennial Census of the United States 1940, Manufactures,* Vol. I, p 120.

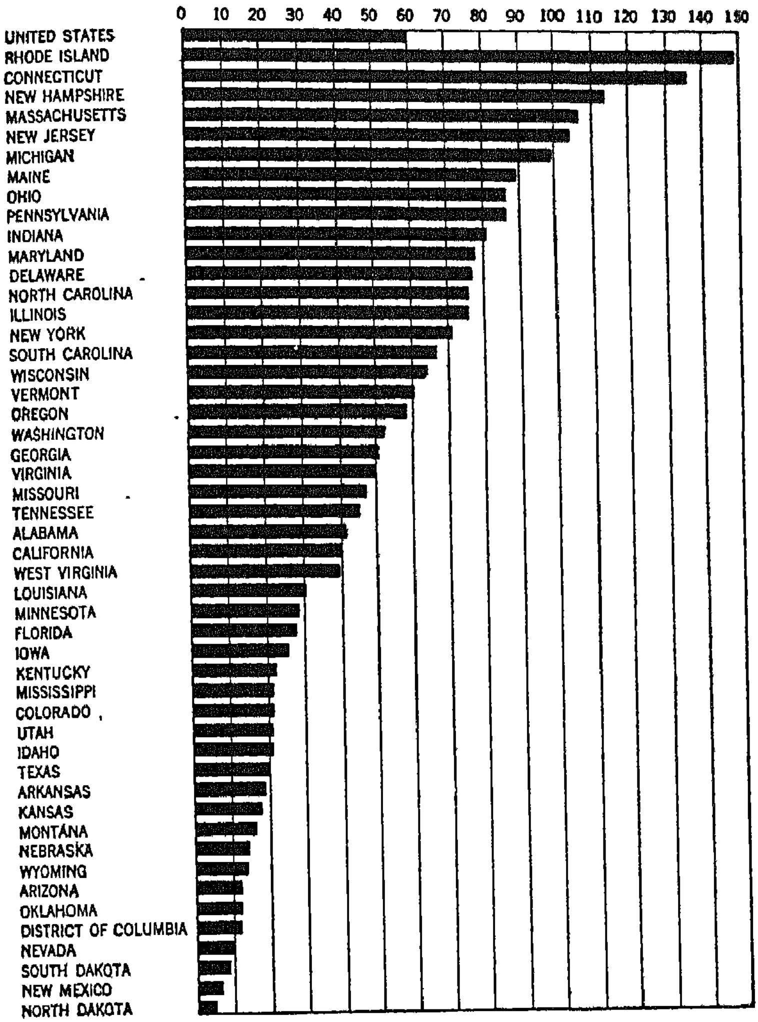



Fig 12 Wage earners engaged in manufacturing per 1000 population, by states, 1939 (wage earners, average for the year, based on Census of Manufactures, 1939, population based on 1940 Census) Source. *Sixteenth Decennial Census of the United States* 1940, Vol I. Photostatic reproduction of Fig 12 supplied through the courtesy of C. P. Capt, Director, Bureau of the Census, Washington, D. C.

in the federal Census. The number of establishments, grouped according to the number of persons employed, is listed in Table 20. The same table also shows the percentage of establishments in each size group.

It may be of interest to note that the number of establishments employing 1 to 5 workers is largest numerically, with close to 76,000 establishments in the group. Of course the larger establishments employ a relatively greater number of workers. There were 176 establishments each of which employed more than 2500 workers.

NUMBER OF WAGE EARNERS IN INDUSTRY GROUPS For federal Census purposes groups of industries are divided into twenty classifications, which are shown in Table 21.

*Table 21*

AVERAGE NUMBER OF WAGE EARNERS BY INDUSTRY GROUPS*

| *Industry Group* | *Wage Earners* (Average for Year) |
|---|---|
| 1. Food and kindred products | 823,693 |
| 2 Tobacco manufactures | 87,525 |
| 3. Textile-mill products and other fiber manufactures | 1,082,602 |
| 4. Apparel and other finished products made from fabrics and similar materials | 751,377 |
| 5 Lumber and timber basic products | 360,613 |
| 6. Furniture and finished lumber products | 293,570 |
| 7. Paper and allied products | 264,716 |
| 8. Printing, publishing, and allied industries | 324,535 |
| 9. Chemicals and allied products | 287,136 |
| 10. Products of petroleum and coal | 105,428 |
| 11. Rubber products | 120,740 |
| 12. Leather and leather products | 327,663 |
| 13 Stone, clay, and glass products | 287,522 |
| 14. Iron and steel and their products, except machinery | 966,367 |
| 15. Non-ferrous metals and their products | 228,753 |
| 16. Electrical machinery | 256,467 |
| 17. Machinery (except electrical) | 522,980 |
| 18. Automobiles and automobile equipment | 398,967 |
| 19. Transportation equipment except automobiles | 157,097 |
| 20. Miscellaneous industries | 238,827 |
| All industry group total | 7,886,567 |

* *Sixteenth Decennial Census of the United States 1940*, Vol. I, Table 3, p. 121.

The total number of workers employed in these industry groups was 7,886,567. Of this total the largest number, over a million, was employed in the textile group. Iron and

steel products workers were a close second; and workers on food and kindred products came in third place.

When major industries and groups of industries are studied, as in courses dealing with occupational information, it may be to advantage to use a classification like the one employed in Table 21, since the Census data are classified in that way.

PRODUCTS OF INDUSTRIAL ESTABLISHMENTS. There were 184,230 manufacturing establishments in the United States in 1940. They employed 7,866,567 wage earners who were paid over $9,000,000,000 in wages.

The cost of materials, supplies, fuel, and purchased energy to operate these establishments was over $32,000,000,000. The value added to the materials by manufacturing was a little less than $25,000,000,000. The total products for the year were valued at approximately $56,843,000,000 This figure represents approximately half the total earned income of all the workers in the United States in all occupations for one year. The facts are shown in Table 22

*Table 22*

SUMMARY FOR ALL MANUFACTURING INDUSTRIES FOR CONTINENTAL UNITED STATES, 1939*

| | |
|---|---|
| Number of establishments | 184,230 |
| Wage earners (average for year) | 7,886,567 |
| Wages | $ 9,089,940,916 |
| Cost of materials, supplies, fuel, and purchased energy | $32,160,106,681 |
| Value of products | $56,843,024,800 |
| Value added by manufacture | $24,682,918,119 |

* *Sixteenth Decennial Census of the United States 1940*, Vol. II, Part 1, Table 1, p. 19

FACTORS TO CONSIDER IN ESTABLISHING VOCATIONAL SCHOOLS OR DEPARTMENTS. Schools or departments of vocational education may be organized to meet a relatively short-time need, such as a war effort, a long-time need, as in the case of the regular vocational schools, or a combination of these.

In every instance a necessary condition is an evident, demonstrable need for the services contemplated. The need may be local, regional, or national in scope.

Availability of trainees is a factor, as is also the ease

with which they may reach the training center. Thus transportation facilities, location, and distance from places of work or from homes help to determine the success or failure of the enterprise.

Financial resources are of great importance. In some areas we have too many schoolhouses that are "red," not so much from the color of paint or bricks as from financial strangulation. The fiscal aspects need to be analyzed with care. Sometimes costs per student-hour of instruction can be reduced by increasing the service area, as through consolidation, or by taking in learners from other districts

The quality of administrative, supervisory, and instructional services available or procurable naturally enters into the picture. Another factor is the plant, that is, the housing and equipment. Provisions need to be made for original outlay, for maintenance, and for extension made necessary by changing occupational and technological requirements. Still another factor that has a direct bearing upon the enterprise is the nature and extent of the community support (other than financial) which can be relied upon, as well as the opposition, open or indirect, which has to be overcome to make the undertaking a success

PERSONS WHO NEED TO BE SERVED. Broadly classified, the persons who need to be served through trade and industrial education at the secondary school level include:

1. Students who are getting ready to enter trade and industrial occupations and who are attending full-time, all-day schools.
2. Young men and women who have left school and who need additional instruction of a refresher or of a conversion type in order to get a job
3. Employed persons, male and female, who, because of technological change or other conditions, need training to fit them for emerging job requirements.
4 Employed persons of all ages who need up-grading training to fit them to perform their jobs better or to enable them to qualify for higher and more difficult jobs in their line of work
5 Persons injured in the armed forces, in civilian life, or congenitally handicapped who need industrial training to enable them to earn their living as self-respecting, self-supporting members of society

TYPES OF CLASSES SUGGESTED. For persons other than those attending full-time schools either part-time or evening

classes are suggested. Part-time classes are usually conducted between 8 A. M. and 6 P. M, whereas evening classes are usually operated after 6 P. M.

Part-time classes may be of several kinds Part-time cooperative and part-time trade extension classes are popular Apprentice training represents a popular special form of part-time trade extension education. Other popular forms of trade and industrial education include plant or job training, war production training, and conversion training for postwar conditions [1]

JOB TRAINING. A study made of 231 companies in 1939 revealed that 33 per cent of them were conducting some form of job training [2] This study showed that training programs were distributed by industries in the following manner.

*Table 23*

PREVALENCE OF JOB TRAINING BY TYPES OF INDUSTRIES

| *Type of Industry* | *Job Training* | *No Job Training* | *Total* | *Per Cent Job Training* |
|---|---|---|---|---|
| Machinery and tools | 16 | 23 | 39 | 41 |
| Textiles | 3 | 15 | 18 | 17 |
| Electrical manufacturing | 10 | 7 | 17 | 59 |
| Chemicals | 4 | 12 | 16 | 25 |
| Food products | 3 | 12 | 15 | 20 |
| Automobiles and parts | 6 | 8 | 14 | 43 |
| Rubber | 3 | 10 | 13 | 23 |
| Lumber and its products | 1 | 10 | 11 | 9 |
| Iron and steel | 7 | 4 | 11 | 64 |
| Stone, clay, and glass | 2 | 9 | 11 | 18 |
| Paper and its products | 5 | 5 | 10 | 50 |
| Eight other types and miscellaneous | 14 | 37 | 51 | 27 |
| Total | 74 | 152 | 226 | 33 |

The methods used in job training, as reported by these same 231 companies, are shown in Table 24.

[1] See also Chapter 3, "Types of Vocational Schools and Classes"

[2] R J Greenly, H. H Remmers, and C E Goode, "Job Training," *Personnel and Industrial Relations Proceedings*, Purdue University, Vol. XXIII, No 3.

*Table 24*

METHODS USED IN JOB TRAINING*

| *Methods* | *Frequency* | *Per Cent* |
|---|---|---|
| Training on the job | | |
| By foremen | 61 | 94 |
| By experienced workers | 52 | 80 |
| By the sponsor system | 24 | 37 |
| By special instructors | 18 | 28 |
| By preliminary introduction to the job by personnel officers | 13 | 20 |
| Vestibule school | | |
| Training directly concerned with the job | 20 | 31 |
| Training concerned only with general technical knowledge | 7 | 11 |
| Training in both general and specific technical knowledge | 19 | 29 |
| Written instructions | | |
| Letters | 12 | 18 |
| Textbooks | 11 | 17 |
| Manuals | 25 | 38 |
| Bulletins | 25 | 38 |
| Newspapers | 1 | 2 |
| Magazines | 10 | 15 |
| Standard practice institutions | 35 | 54 |
| Meetings | | |
| Lectures | 28 | 43 |
| Conferences | 31 | 48 |
| Demonstrations | 28 | 43 |
| Clinics | 3 | 5 |
| Motion pictures | 16 | 25 |
| Inspection trips | 21 | 32 |

* These data were also issued by R G Greenly in "Employee Training," *N A M. Labor Relations Bulletin*, No 35, January, 1941

THE LOCAL DIRECTOR OF VOCATIONAL EDUCATION. State plans for vocational education provide that the local director of vocational education shall have trade, professional, and other experience qualifications that exceed the minimum certification requirements of the supervisors and teachers over whom he exercises authority

The term director of vocational education is not as specific as it might be. Such an official may supervise any

one or more forms of vocational education or all of them. A director of vocational education in a rural community may direct vocational agriculture or possibly agriculture and homemaking education In urban centers the director of vocational education may have charge of (1) trade and industrial education; (2) trade and industrial education and industrial arts; (3) trade and industrial education, home economics, distributive education, rehabilitation, industrial arts, and possibly additional fields.

The director of vocational education may be responsible directly to the superintendent of schools—either city, district, or county superintendent His relationship to senior high school and other principals, or headmasters in New England, varies. Some of the largest cities make their director of vocational education, who is usually a specialist in trade and industrial education, an assistant or associate superintendent of schools

The director of vocational education has many responsibilities. Subject to the approval of the superintendent of schools, he

1. Selects and recommends for appointment all teachers in his fields of service.
2. With the assistance of his staff plans courses of study, equipment needed, supplies required, and housing to be provided
3. Spends much of his time in the improvement of teachers in service and helps them to do the best possible job
4. Contacts community leaders and groups
5. Makes studies, investigations, and surveys to determine training needs or cooperates with others, as with the public employment service, to determine such needs
6. Prepares budget estimates and performs many other administrative and supervisory functions.

THE COORDINATOR The term coordinator has many connotations Such an official may work on a state-wide, regional, or local basis. In one state the term coordinator is used for the person who is directly responsible for the program of trade and industrial education in districts having fewer teachers than are specified as the minimum for a director.

In other instances the coordinator may be a man or woman, working under a director in the larger cities and

on his own in small ones, who is responsible for making industrial contacts—especially placing and following up students who are employed on some form of cooperative or part-time basis involving the cooperation of school and industry. It is possible to have cooperative relations between the employment service and the schools so that both agencies render worth-while service The coordinator can be of use in informing the school about the latest training requirements, in checking on the effectiveness of instruction that has been given, and in helping to decide how vocational education may be improved.

SUGGESTIONS FOR EXECUTIVES. A professor of business management at the Massachusetts Institute of Technology has proposed several "rules of tongue" which appear to have merit for executives and teachers in vocational education.[3] In brief the rules are:

1. *Suggest rather than command* Instead of saying, "Do this" or "Do that," try a less direct method such as, "Wouldn't it be a good idea to do this "
2. *Exercise the rule of partnership* This means "to talk *with* rather than *at* our subordinates."
3. *Remember that when an executive speaks, he speaks for the company* Irrespective of intentions, what an executive says is taken as official by subordinates
4. *Release rather than restrain subordinates* This calls for constructive rather than destructive procedures and for positive commendation but for reprimand through silence
5. *Exercise forethought.* Statements hastily made may be regretted at leisure, therefore give forethought to what is said and done

THE SUPERVISION OF INSTRUCTION. The chief purpose of supervision of instruction is the improvement of teaching This is probably best attained by following a long-time policy of giving constructive help to teachers in service, as contrasted with inspection, which is necessary to some extent. Good supervision implies being on the look-out for whatever may help each teacher to accomplish the high-grade work he wants to do. It may call for more equipment, for better quality of supplies, or for information relating to sources of instructional content.

[3] *Trained Men,* Vol XXII, No 5, September-October, 1942, published by International Correspondence Schools, Scranton, Pa, pp 11-3.

It is the supervisor's job to serve as an inspiration and a source of help for each teacher. Some teachers need more encouragement than others Some are strong in resourcefulness while others are not. Teamwork and group loyalty may need to be encouraged Professional rather than personal outlooks may need to be developed in teachers in variable degrees.

Some of the points which a supervisor should look for or check upon are:

1. Does the atmosphere of the shop, laboratory, or classroom indicate self-activity and resourcefulness on the part of each learner?
2. Is the prevailing spirit democratic, wholesome, and businesslike?
3. Does the shop or classroom management show organizing and leadership abilities on the part of the instructor?
4. Is the house-keeping, especially in regard to materials, supplies, unfinished projects, and waste materials, of a high order?
5. Is the instructor a superior teacher?
6. Is the instructor interested in his students as individuals?
7. How well are the objectives of the instruction realized?
8. Are the products of instruction—both the students and the things they make—of outstanding quality?
9. Is the teacher progressive, cooperative, and professionally minded?

SELECTING VOCATIONAL TEACHERS Trade and industrial teachers may be classified as (1) teachers of shop work and (2) teachers of related subjects Both are vocational; therefore the salaries of both groups may be subsidized from federal funds if the state plan so provides.

In selecting trade teachers vocational competence in the specific things to be taught is of utmost importance. The mere fact that a man is an experienced electrician is not enough, he must be experienced in the kinds of electric work that are to be taught in his classes Those selecting teachers need to be on their guard to make sure that the teacher they choose is the best person available for the specific things that need to be taught. This statement is not intended to imply that the broader human values are not of correlative value.

Similarly, a college degree and certification in a given area such as related science do not guarantee that the teacher who has them is outstanding in his ability to teach a particular kind of related science. It is therefore appropriate

to inquire what industrial, professional, technical, or other experience the instructor has had in teaching what leaders in the field believe should be presented. As a means of evaluating a prospective instructor, it is in order to ask him what his objectives are and what he considers most important in the area of related subjects instruction under consideration.

It goes without saying that a vocational teacher must be vocationally competent. Without this qualification he cannot succeed. However, there are other factors just as important One of them is the instructor's personality. No amount of trade experience will make a tactful, pleasant, enthusiastic teacher out of a person who is inherently selfish, grossly tactless, and pessimistic in general outlook. It is hard to make a cooperative teacher out of a person who does not like to cooperate.

Another factor to consider is the teacher's philosophy of life—his basic convictions, his ideals, and his professional training. Other factors might be mentioned, but enough has been said to indicate that in the task of selecting teachers the combined judgment of several competent observers is likely to be more reliable than that of one person Rating scales are useful but will not serve as a substitute or crutch for carelessness in selecting teachers, supervisors, or administrators of vocational education.

RATING TEACHERS. A study was made by Paul Mendenhall entitled, "Rating Industrial Teachers for Promotion and for Improvement of Teaching"[4] The data in his study were based upon inquiry blanks returned by 1086 teachers of industrial education and 118 leaders of industrial education in cities in the United States of 30,000 or more population Among the conclusions are these:

1 In at least two out of three situations industrial teachers are rated for promotion It is important that such ratings be made as scientifically as possible.
2 Approximately half the officials rating these teachers use rating devices of the objective type. Such rating devices should be used more extensively, and they should be explained to teachers.

[4] Master's thesis, the Pennsylvania State College, 1935

3. As a means of rating teachers for promotion, at least six ratings per year should be made.
4. The ratings are most frequently made by the supervisor, principal, department head, director, superintendent, and assistant superintendent.
5. Approximately 70 per cent of the teachers are rated for the improvement of teaching More ought to be so rated.
6 Approximately half the city leaders encourage industrial education teachers to make self-ratings Wider use of such ratings is desirable.
7 Full information as to why, when, and by whom teachers are rated should be given them
8. There is a distinct need for developing suitable objective rating scales for teachers.

Improving Shop Efficiency. One of the long-time goals toward which progressive vocational teachers and alert foremen strive is to improve job efficiency. An experienced group of industrial teachers in Williamsport, Pennsylvania, in considering this matter, listed the following items as of possible value in improving the efficiency of learners and workers in machine shops. They may also apply to other types of work

1. Raising the standards of workmanship.
2 Developing a more rigid checking and inspectional system
3. Using a gauge to check each piece of work.
4. Letting students use gauges to check their own work.
5. Using jigs and fixtures to improve the quality of work as well as the speed of operation.
6 Using ablest students to make jigs and fixtures.
7. Using less able students for work requiring lower standards.
8. Appointing or electing a safety inspector and training him to look for unsafe machines, machine tool equipment, and tools, such as loose hammer heads, mushroomed heads on star drills, center punches, hard heads on punches, and chisels. Hazards found should be posted on the bulletin board until they are corrected
9 Studying the arrangement of machinery and equipment with a view toward rearranging them so as to save time.
10. Keeping tool kits with each machine rather than in a central tool crib.

Professional Attitude. The professional attitude of the local teaching staff is often reflected in the type of leadership they have had Where the director of vocational education is professionally minded and progressive, his example and leadership soon show results. Teachers are

likely to make efforts toward professional improvement when encouraged to do so by those to whom they are responsible. Teachers are usually interested in doing their work well.

The director may be of assistance in making the professional growth of himself and staff a group undertaking. For example, he may serve as leader or chairman, or he may ask a teacher-trainer to provide service

Teachers are likely to be most interested in forms of professional improvement that relate to certification and to work that up-grades them and bears directly upon their daily work or that for which they are preparing.

Professional reading and discussion deserve encouragement. Professional alertness and growth are of course manifested in many ways—for example, through the development of instruction sheets, course outlines, and reference lists for students and by developing better tests, examinations, and rating scales than were used previously. Other evidences may be the development of record sheets, rearrangement of equipment to provide more convenient storage, and setting up a more effective plan for student participation in shop or classroom management

In some instances travel may contribute to professional growth. For those who have been away from practical trade experience for an extended time it may be helpful to work at the trade during weeks or months when they can do so.

Recognition, financial and other, of superior service is a stimulus to professional effort If teachers' salaries are too low a good way to start on professional development is to raise the salaries of those who deserve it Teachers are progressive if they are not satisfied with present achievements and are striving toward higher standards.

Distinction between Regular and War Production Training. The regular program is financed with the aid of federal funds made available through the Smith-Hughes and George-Deen Acts. Courses given in the program of vocational training for war production workers are paid for out of funds appropriated for war production

training. In the latter program emphasis is placed upon preparing persons for unit skills—or for a few related skills—in the shortest possible time. In other words the aim is to train machine operators, as distinguished from training machinists. Both programs are geared to the war effort. The regular program puts considerable but by no means all the emphasis on long-term instruction, as in all-day schools and with apprentices; the war production program stresses short, intensive training for critical labor shortages.

Advantages of Knowing Laws and Policies. There are distinct advantages in teachers, as well as directors, being well informed about federal, state, and local laws, rulings, and policies that relate to vocational education. Some of the reasons why these should be known are:

1 They form the foundation upon which wise programs may be developed
2 Their understanding is essential to a sound philosophy of vocational education
3 A clear understanding of objectives and reasons for objectives is needed in order that the processes of instruction may be selected with discrimination
4. Teaching content may be organized in terms of known objectives and policies of demonstrated worth
5. Public funds may be spent wisely only when laws, rulings, and interpretations of duly constituted authorities are known.
6. Much trouble can be avoided by proceeding along approved and tested lines
7 Lack of familiarity with law does not excuse misuse of public funds.
8. Society has placed in the hands of teachers a high responsibility· that of improving society Vocational teachers share in the opportunities and challenges that such a major task carries with it They will be of greater usefulness if they are well grounded in the laws, rulings, and policies that relate to their fields of major interest.

Stimulating Attendance. Sometimes more persons apply for instruction at vocational schools than can be accommodated. On the other hand, there are times when even the best schools find it advisable to stimulate attendance in some or all of their departments Every community is an individual case, and what is effective in one may not work so well in another The following suggestions may be helpful in varying degrees.

1 Support for the school may be developed by asking for the cooperation of those who benefit most from it This group may include (*a*) employers, (*b*) labor, (*c*) graduates, (*d*) business people, (*e*) parents

2. Approaches should be made with business executives, labor leaders, and other key people in authority and with influence

3. The state department of education may be able to help you.

4 Community service well done is one of the best advertisements.

5. Exhibits in store windows attract attention

6. Circulars distributed through children in the elementary and intermediate grades reach a large proportion of parents and will be read by most of them.

7. New services—training for new industries, as well as for older ones—should be investigated. Are there women and girls who could benefit from instruction?

8. Perhaps the school should be prepared to handle rehabilitation training.

9 Talks, especially illustrated ones, to community groups may help to bring the school to their attention.

10 "Open-house" when parents and others may see the school in operation with all students doing their regular work is usually well attended and may serve to stimulate school attendance

11. Teachers who are in good standing in their field and who may attract students personally or through their connection with labor organizations or employers should be employed

12. Athletic events, extra-curricular activities, and good relations with the academic schools or departments usually prove helpful

13 Adequate training facilities must be provided

APPRENTICESHIP, AN INDISPENSABLE TRAINING. Thorough and broad apprenticeship training is vital to war and postwar industry. There is urgent need for more apprentices in the United States. The fact that the Federal Committee on Apprenticeship was transferred from the United States Department of Labor to the War Manpower Commission would appear to be evidence that the President considered it advisable to have that service function more directly

Currently, the twelve regional offices of the Apprentice-Training Service of the War Manpower Commission are stimulating apprenticeship.[5] Approximately 2100 apprenticeship systems, including those in individual plants and those set up on a city, county, state, or national basis have

[5] War Manpower Commission, *Training Apprentices for War and Post-War Work,* by William F Patterson, Government Printing Office, Washington, D C, 1943, p. 16.

been established in accordance with standards recommended by the Federal Committee on Apprenticeship. In one year the number of such systems almost doubled.

Representative of the apprentice systems being fostered are some of the features of the plan put into effect by the Murray Corporation of America.[6] The plan was begun in 1934. The following schedule, developed for tool- and diemakers, is representative

*Table 25*

TRAINING SCHEDULE FOR TOOL- AND DIEMAKING

| *Nature of Work* | *Time in Months* | *Nature of Work* | *Time in Months* |
|---|---|---|---|
| Bench and vise | 12 | Internal and external grinding | 2 |
| Shaper | 4 | Keller | 4 |
| Lathe | 4 | Turret lathe | 1 |
| Vertical mill | 2 | Slotter | 2 |
| Horizontal mill | 2 | Machine repair | 1 |
| Boring mill | 2 | Planer | 1 |
| Radial drill | 2 | Heat treating | 1 |
| Surface grinder | 1 | Die try-out | 6 |
| Blanchard | 1 | Total | 48 |

In the event that the apprentice progresses more rapidly than the schedule calls for, he is given training in additional processes such as templet making, inspection, jigs, and fixtures. Each apprenticeship requires 4 years or a total of not less than 8000 hours.

Applicants must be between 17 and 21 years old, and they must be high school graduates with standing above average. Many more apply for the training than can be accommodated Each apprentice is required to buy a set of tools recommended by his supervisor. The company furnishes the tool box. The apprentice must wear specially designed uniforms, which help to identify him.

He is rated monthly His rate of pay is increased every 500 hours He is paid during 4 hours per week in which he attends school and is expected to attend classes 4 additional hours per week on his own time

An apprentice club has been organized which enables boys working in different departments to become acquainted

[6] *Ibid*, pp 1-14

with one another. Monthly meetings are held to which alumni are invited and before which supervisors speak. Social and sports activities are also handled by the club.

The company has signed an agreement with a union affiliated with the C.I.O. It provides for a joint apprenticeship commission of six members, three from the union and three from the company (one of whom is the supervisor of apprentices).

APPRENTICESHIP A JOINT RESPONSIBILITY. Although there are many federal agencies, such as the War and the Navy Departments, that have an interest in apprenticeship, there are two federal services which have special responsibilities for promoting and serving apprentices on a national basis. One of these, the Apprentice-Training Service, currently of the War Manpower Commission, has already been mentioned The other is the United States Office of Education, Vocational Division

The first of these agencies deals with the apprentice as an employed worker and is concerned with the conditions under which he works, his rates of pay, and the number of apprentices to be trained. The Office of Education, through the state boards for vocational education, deals with apprentices as students.[7] It is well known to students of vocational education that apprenticeship training has been sponsored by public school authorities for many years.

OTHER PROVISIONS IN APPRENTICESHIP. In general, related instruction stresses related mathematics, science, drafting, and trade theory. The work on the job is planned to provide all-around training in skills The working hours are those of the establishments—normally a 40-hour work week, in 8-hour shifts, with time-and-a-half for overtime The apprentice may be on any shift, as may other employees.

Books and school supplies are usually furnished by the

[7] J C Wright, *Apprenticeship and the American Way of Life*, address at annual convention of American Association of School Administrators, Atlantic City, February 24, 1941.

company. Handbooks and other special books and personal tools needed by workers in the trade may be obtained through the company

Most apprenticeship agreements provide for a probationary period of approximately 500 hours. When the probationary period has been completed satisfactorily, a written agreement is entered into.

Apprentices are rated on a number of items. These usually include quality of work, speed, industry, cooperation, consideration for others, self-reliance, and resourcefulness.

A bonus is sometimes given upon the satisfactory completion of an apprenticeship A diploma or certificate is likewise issued

Diversified Occupational Training.[8] As an example of programs of training for diversified occupations, that of South Carolina, which is one of a group of states where the program has received considerable attention, may be cited

Practically all cooperative industrial education in South Carolina is of the diversified occupations variety. It may be said that in the judgment of the leaders in that state, day-trade training should not be replaced by diversified occupational training but rather supplemented by it.

Among the advantages of the plan are:

1. It is well suited to small communities.
   (*a*) Training can be varied to meet local demands.
   (*b*) Program easily adapted to local requirements.
2. When surplus of labor develops, the training can be stopped without appreciable loss.
3. Expansion of the training program can be brought about quickly and inexpensively.
4. All available training resources of the community can be utilized to the utmost.
5. Persons may remain in the community to obtain instruction which otherwise would be denied them.

The diversity of occupational training which has been

[8] *A.V.A. Journal and News Bulletin*, Vol. 15, No 3, September, 1940

developed is shown by the following distribution, which is typical.

| | |
|---|---|
| Department store clerks | 114 |
| Grocery clerks | 80 |
| Stenographers | 53 |
| Textile workers | 44 |
| Auto mechanics | 40 |
| Service station operators | 18 |
| "Five and ten" store clerks | 16 |
| Domestic service workers | 15 |
| Waiters or waitresses | 12 |
| Beauty shop workers | 10 |
| Radio servicemen | 9 |
| Drugstore assistants | 9 |

MULTI-OCCUPATIONAL COURSES. Multi-occupational courses are designed to give some manual dexterity in a variety of production skills which may fit the student for a number of specialized operative jobs and also develop suitable work habits and attitudes. There are certain common elements in a number of families of jobs which can be identified and used for training purposes. Courses in multi-occupations may be given advantageously to persons who are reasonably sure to enter one of a group of related jobs but who do not know which specific one they will choose.

## FOR DISCUSSION

1. Discuss population trends and show their implications for vocational education.
2 Show the relationship between manufacturing and farming
3. What appears to be the trend as to size of manufacturing establishments in the United States?
4 Mention several groups of industries that each employ more than a half million workers
5 What are the chief factors to consider in the establishment of vocational schools and departments?
6 What groups are likely to benefit from vocational education?
7 Describe the qualifications required of directors of vocational industrial education in your state.
8 Mention the chief duties of local directors of industrial education.
9 Explain what is meant by a coordinator
10 What should a supervisor of instruction look for in order to be of assistance to teachers?
11. Indicate how and by whom industrial teachers should be selected
12 Make constructive suggestions concerning the rating of teachers.
13 Mention a number of ways in which shop efficiency may be increased in school and in industry.

14 How may a professional attitude be fostered?

15. Compare regular and war production training

16 Why should teachers and directors be familiar with laws, rulings, and policies in industrial education? State sources

17. How may attendance be stimulated in a school system with which you are familiar?

18. Describe the function and work of the Apprentice Training Service of the War Manpower Commission

19 Explain how apprenticeship education is promoted by the United States Office of Education cooperating with the state

20 In what respects is apprentice training a joint responsibility? Who is concerned in it?

21. Mention the usual features or conditions of apprentice training

22 Evaluate diversified occupational training

23. Why have multi-occupational training? How does it differ from other forms of industrial education?

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## CHAPTER 21

# *Women in Gainful Employment*

To most women the art and science of homemaking make the strongest vocational appeal. However, the mere mention of such names as Jane Addams, Louisa M Alcott, Clara Barton, Queen Anne of England, Mary, Queen of Scots, Florence Nightingale, Marie Curie, Jenny Lind, Madame Schumann-Heink, Queen Victoria, Catherine II of Russia, and Amelia Earhart recalls women whose achievements have made them famous in a variety of fields.

Women's entry into gainful employment in business and industry in the United States is of relatively recent origin. In Lowell, Massachusetts, employers operating textile mills made factory work respectable for women around 1820 Man power shortages after the Civil War increased women's opportunities for factory employment Today the percentage of women in industry is growing faster than the percentage of women in the population. The increase was particularly great in the war years after 1940.

WAR INDUSTRIES EMPLOYING WOMEN [1] In the last few years tremendous changes have come about in the employment of women. Estimates based on a study made by the magazine *Modern Industry* indicated that, exclusive of office workers, the percentage of women employed in the aviation industry jumped from 1 per cent in 1941 to 15 per cent in 1942 and probably to 65 per cent in 1943.

The electrical industry showed estimated gains in woman personnel from 6 per cent in 1941 to 35 per cent in 1943. The percentage of women workers in the instrument industry was expected to increase from 10 per cent in 1941 to 60 per cent in 1943, when the pharmaceutical industry was expected to have 75 per cent of its employees women. In the tool and die industry, essentially one requiring much

[1] Office of War Information, *War Jobs for Women*, November, 1942.

craftsmanship, it was estimated that in 1943 1 out of 5 workers were women. In machinery the increase was estimated to be from 10 per cent in 1941 to 50 per cent in 1943. In the hosiery industry, 80 per cent of the workers in 1943 were estimated to be women

EMPLOYMENT POLICIES. Some important employment policies were formulated through the cooperation of several governmental agencies. Chief among them are the following:

1. *Equal pay for equal work.* This principle of equal pay for men and women for equal work has been looked upon by the Woman's Bureau of the United States Department of Labor as a distinct gain over the conditions that prevailed during the World War I Many employers, though not all, follow this practice.

2. *Day care of children of employed mothers* The War Manpower Commission is of the opinion that the employment of mothers of young children should in general be deferred until other labor sources have become exhausted In some instances, however—for example, when the mother must support the family, when there is a critical local housing shortage, or when the mother has special training which will make her exceptionally useful immediately—suitable day care for her young children needs to be provided There are two ways of doing this. (*a*) individual care, as in a foster family, and (*b*) group care, as in a nursery school, play school, vacation camp, child-care center, whereby supervision before and after school hours is arranged.

3 *Maternity provisions.* The Woman's Bureau of the Department of Labor has recommended as a general policy that provisions for maternity care and leave shall not jeopardize a woman's job or her seniority privileges A minimum of six weeks' leave before the birth of a child and at least two months' leave thereafter is held to be essential to the welfare of mother and child

4. *General working conditions* Training courses in safety should be insisted upon. Heavy lifting, unsafe practices, and health hazards should be avoided

5. *Hours of work* Hours should conform to the standards recognized as suitable for girls and women.

In view of the fact that the employment of married women with children in the United States is reaching larger proportions, we shall need to give special study to the extent to which they are likely to be gainfully employed after the war. If necessary, systematic community programs for taking proper care of young children will need to be put into

operation. Some leaders are of the opinion that it is inevitable that women will enter industry in increasing numbers [2]

PROVEN ABILITIES OF WOMEN. There are few occupations in which either men or women are employed exclusively. Experience with women workers during the war has revealed conclusively that many of them possess or were able to develop manipulative skills of many kinds. Among them are operating a large variety of machines, such as drill presses, grinders, lathes, punch presses, forming presses, screw machines, and milling machines

Inspection of manufactured parts and products through visual means, with the aid of gauges and other precision measuring devices, as well as checking and testing materials, is performed well by women and girls. They excel in tasks requiring delicate touch and speed—for example, instrument making, maintenance, and repair. Lens grinding and making radio tubes and detection devices of various sorts are likewise jobs at which women excel

The Woman's Bureau estimates that at least one-third of the jobs in aircraft assembly, engine, and propeller plants could be performed by women. Girls in airplane assembly plants perform many jobs, such as riveting, sewing, drilling, hand finishing, installing the "spaghetti work" behind instrument panels, and carrying on inspection of many sorts.

Ammunition plants employ a high percentage of women workers. In some plants women can do between 70 and 90 per cent of the jobs They include machine operations on detonators, fuse primers, boosters and the like, loading projectiles, percussion elements, and other jobs calling for precision and finger skills.

WOMEN IN AGRICULTURE. The heavy demand for food production and the shortage of men on farms have been responsible for women doing many sorts of farm work not commonly performed by them They plow, disk, harrow, drive tractors and trucks, and operate other farm machinery. Many women and girls have helped with hand cultivation and with harvesting many sorts of crops.

[2] See report by Charles I Schottland, *Handbook on Education and the War*, pp 166-9.

It is highly desirable that suitable working and housing conditions be maintained for women and girl farm workers, and that they be paid fairly and employed steadily. Employing women and girls only a few days a week is not an inducement to those who must live away from home or travel far to and from work

WOMEN IN COMMUNICATION. The majority of the employees of telephone companies are women. The excellence of their service is generally known. Women are gradually getting into the technical aspects of the telephone business.

Radio, like aeronautics, has been largely a young man's field. Recruitment has taken out of the radio industry a large proportion of young men. Their places are being filled by women and girls.

Girls and women are being used extensively for Western Union and similar messenger services.

WOMEN IN BUSINESS AND PROFESSIONS. In banking about 25 per cent of the employees are women. Retail and wholesale establishments employ large numbers, as do other business establishments.[3]

Among the professions there are many of special interest to women Education is a field in which women have long been employed in large numbers. Journalism is also attracting women.

Nursing was popular long before 1940, and pharmacy offers good opportunities to women. In 1940 there were 7470 women physicians in the United States. All but 6 of the 77 medical schools admitted women In the health field there are also openings for women as laboratory technicians, experts in public health, bacteriologists, chemists, social workers, occupational therapists, and physiotherapists.

Scientific research offers opportunities for those trained in physics, chemistry, geology, mathematics, home economics, agriculture, engineering, and other fields The diplomatic service requires persons of superior personality who

[3] See Chapter 18, "Distributive Education."

are linguists, specially trained secretaries and experts in other areas of learning.[4]

WOMEN IN OTHER OCCUPATIONS. In 47 occupations in machine manufacture, in which there are labor shortages, 17 are wholly and 22 are partly suitable for women workers. The British machine tool industry employed approximately 45 per cent women, whereas in 1942 only 7 per cent were employed in 7 major New England firms. In manufacturing such items as rubber life rafts, landing boats, flotation bags for planes, rubber vests and self-sealing gas tanks, and gas masks, it is estimated that 70 per cent of the employees will be women

Scientific, optical, and surgical instrument manufacturers are employing as high as 50 per cent women. In shipyards they serve as chauffeurs, welders, burners, and small machine operators. Transportation companies employ many women as secretaries, stenographers, typists, machine operators, and switchboard operators. They also serve in larger numbers as traffic representatives, train stewardesses, station agents, timekeepers, accountants, bookkeepers, car tracers, and rate clerks.

More women are driving commercial buses, trucks, and automobiles as a means of livelihood. Certain industries, such as the foods, clothing, and textile industries, have for years employed a large percentage of women and girls and are continuing to do so.

EFFECTIVE USE OF WOMAN POWER. A number of helpful suggestions relating to the effective use of women workers were prepared in cooperation with labor advisory committees from eight major groups of industries by the Woman's Bureau of the Department of Labor. The following material is drawn largely from Special Bulletin No 1.[5]

1. The physical characteristics of the job must be suited to women workers Jobs involving light work, care, alertness, manipulative dexterity, and speed are especially suitable.

[4] American Council on Education, *College Women and the War*, Bulletin No 35

[5] The Woman's Bureau, *Effective Industrial Use of Women in the Defense Program*, Special Bulletin No 1.

2. Safety precautions and adequately guarded machinery help effective production. Muscular strain should be reduced to a minimum. Speed is a strong factor in producing fatigue. Both the Fair Labor Standards Act and the Public Contracts Act prohibit girls under eighteen from working in occupations declared to be hazardous by the Chief of the Children's Bureau of the United States Department of Labor

3. Women require special protection against poisoning or other harmful effects of fumes from benzine, which may dispose to hemorrhage; TNT, sulphur, ether, and other substances causing skin irritations; carbon disulphide, which attacks the nervous system, lead, which is one of the most common industrial poisons, mercury, used in chemical plants and elsewhere, arsenic, also used in chemical and other plants, and silica dust, often produced by grinding and polishing machines and resulting in an incurable lung disease unless entirely removed from the air Exhaust systems are necessary to prevent harmful fumes from the poisons mentioned

4. Special lighting is required for the fine work many women perform Better lighting reduces eyestrain, lowers accident rates, reduces wear and tear on equipment, and lowers costs of production The Illuminating Engineering Society holds that the standards for natural lighting should be at least four times those for artificial lighting. For artificial lighting for assembly lines in automobile manufacturing a minimum of 50 to 100 candles is specified; for weaving dark goods, 30 candles; for aircraft repair departments, 30 to 50 candles.

5. Seats should be provided for women workers Production has been increased by providing seats that eliminate strain

6. Sanitation is necessary Hot and cold water, individual towels, and other sanitary facilities reduce lost time and sometimes prevent more serious consequences. Well-equipped lunchrooms, restrooms, and dressing rooms contribute to work efficiency Good ventilation, provisions for medical aid, and the appointment of committees to report to the management on harmful working conditions also help to increase the efficiency of workers.

7. Practical work clothing reduces the injury rate and increases production Uniforms, gloves, shoes, and headwear can be designed so as to protect workers Goggles prevent many eye injuries. Jewelry of certain kinds may cause injuries The hazards for each occupation can be studied and requirements as to clothing worked out accordingly

8. Moderate hours of work are conducive to quality and quantity production They are also conducive to decrease in absenteeism and labor turnover.[6]

Regularity in mealtime, furthermore, is helpful in increasing job efficiency. Some industries find a rest period of at least ten minutes in the middle of a four-hour period desirable. The Woman's Bureau believes overtime should be avoided as much as possible. When necessary it should be divided among all available workers

9. Wages should be commensurate with service rendered Minimum rates required by law must be paid. Rates should be based on occupational

[6] See National Industrial Conference Board, *Research Report*, No. 18

requirements, not on the sex or race of the employee. Wage rates should be adjusted from time to time to conform to fluctuations in the cost of living.

10. Women workers need training and employment policies that are adjusted to their needs. Dislocation of workers should be prevented when possible. Careful selection and training for jobs for which women have aptitude are helpful The methods of training, as well as those of supervision, should be adapted to women workers. Woman representation on collective bargaining and other committees is conducive to fair treatment to women workers

DIFFERENCES BETWEEN MEN AND WOMEN. It is generally known by psychologists and by students of education that mental differences between the sexes are small Boys and girls are able to do mental work in school equally well. In some other respects they differ more fundamentally—for example:

1. *Most women look upon gainful employment as temporary.* To them it is of secondary importance as compared with marriage and homemaking. If they are married, the welfare of the family comes first.

2 *Women interpret their relationships with fellow workers more personally than do men.* They are likely to be more easily offended than men if they think another woman is shown preference or favoritism. Being more interested in persons than men, women require more tactful handling on the part of foremen, supervisors, and employers

3. *All normal individuals respond to judicious praise, women more so than men.* If a woman dislikes her foreman she is likely to give up her job; if a man does, he may keep the job if he likes his work To a man the attitude of the foreman is important, but not as important in many cases as the satisfaction he gets from work that he likes.

4. *Women are more easily satisfied with routine, repetitive jobs.* This is probably largely due to the fact that they look upon gainful employment as temporary

5. *Women are more easily discouraged at work that is outside their field of major interest.* This attitude calls for ways and means of overcoming it Women may be helped in developing confidence in their ability to do mechanical and other new jobs. Carefully planned instruction and constructive supervision are helpful.

6 *Women care more for appearance, cleanliness, style, and convention than do men* Attractive working quarters, clean restrooms, and well-served meals mean more to them than to men

7. *Differences in mechanical aptitude are probably not as great as many persons believe them to be* Relatively recent experience with women in war industries tends to verify to some degree the findings made public some years ago by Donald G Patterson and associates at the University of Minnesota to the effect that such differences are small.

8. *Women are superior to men in jobs demanding patience, finger dex-*

*terity, sensitiveness of touch, and speed of reaction.* Women have long been used extensively in occupations requiring the abilities mentioned. They excel where fine work and light assembly are involved

OCCUPATIONS SUITABLE FOR WOMEN. A study was made by the Occupational Analysis Section of the United States Employment Service of occupations offering opportunities to women in the war production program.[7] The study lists occupations in the title and code terminology of the *Dictionary of Occupational Titles* issued by the Employment Service. Part I lists occupations that occur in selected war industries; Part II, other occupations. Part III contains definitions of certain titles listed in Parts I and II.

The suitability of each occupation has been indicated in the following manner· *1*, Women now employed; *2*, Apparently suitable for women; *3*, Partly suitable for women. The normal training period is indicated by the following symbols· *A*, More than 2 years; *B*, 1 to 2 years, *C*, 6 months to 1 year; *D*, 2 months to 6 months; *E*, Less than 2 months. Although the list of occupations is too long to include here, reference to the study may be of interest to those who serve as counselors, teachers, or administrators.

ATTITUDES TOWARD VARIOUS INCENTIVES.[8] A study was made by Blum and Russ, using the paired-comparison technique, to determine the relative importance of five incentives, namely, salary, security, supervisor, hours of work, and advancement. The data relate to 181 males, 72 of whom were married, and 105 females, 26 of whom were married. The range of occupations ran from unskilled labor to the professions.

Their analysis shows "that males and females tend to agree as to the relative importance of the various incentives used. The single exception is that the females rate supervisor relationships ahead of salary. In the male group this is reversed "

It was furthermore found that both groups rate advancement first and security second Married males rated security

[7] United States Employment Service, *Occupations Suitable for Women*, 1942, 103 pp

[8] Milton L. Blum and John J. Russ, "A Study of Employee Attitudes Toward Various Incentives," *Personnel*, Vol. 19, No 1, June, 1942, pp. 438-44.

higher than single males. The latter placed greater importance than did the married men on advancement. The married females indicated greater interest in shorter hours of work than did unmarried females. With increase in age, advancement decreased in importance to both males and females and interest in job security increased.

NIGHT WORK FOR WOMEN WORKERS [9] Individuals differ in their ability to work on night shifts. Those who are anemic or have respiratory disease, digestive disease, or nervous disorders should not be put on night shifts A few people find it very difficult to sleep in the daytime Long-continued night employment is undesirable, especially for growing youth, and for married women having homemaking responsibilities.

As a means of reducing the dangers of night work to the employees' health, the Woman's Bureau recommends:

1. Making sure the individual is able to work on the night shift
2. Providing time and facilities for a hot and nutritious meal
3. Preserving the week-end rest.
4. Assuring effective health supervision for night workers.
5. Providing well-trained supervisors for night work
6. Providing good lighting, which lessens fatigue and the likelihood of accidents.
7. Giving attention to worker's transportation problems.
8. Paying a differential rate for work at night, thus providing some compensation for the additional strain of night work

TAILORED TRAINING TECHNIQUES. Lodge and Shipley Machine Tool Company has reduced the induction training program for women on war jobs to the following four fundamentals: use of a six-inch scale, reading a decimal chart, use of a micrometer, and reading mechanical drawings.

Each employee has an interview with the personnel director, who explains briefly job requirements and company policies. Induction generally takes these steps: (1) introduction to company spirit, personnel, products, and policies; (2) training on the job for specialists; (3) safety training.

[9] Woman's Bureau, United States Department of Labor, *Night Work for Women and Shift Rotation in War Plants,* Special Bulletin No 6, June, 1942, 8 pp.

During the first day a short intelligence test is given; in the afternoon a mechanical aptitude test is taken. Shop tours supplement instruction in the classroom and on the job.[10]

Another type of streamlined training for women war workers is that in which competent women are recruited and sent to a university for intensive training before they are put on the job For example, the Eastern Aircraft Division of General Motors sent a group of girls to Rutgers University for a ninety-day intensive course. At the Pennsylvania State College four different groups of women are getting similar training They were sent by four large companies having war contracts.

The programs are made continuous by having successive groups start at intervals No doubt different plans prevail from state to state. At Rutgers the tuition is paid out of funds allocated by the United States Office of Education for Engineering, Science, and Management War Training. The Eastern Aircraft pays each student $130 monthly salary while in training Base pay is raised to $140, plus time-and-a-half for overtime, upon employment.[11]

TRAINING WOMEN FOR PRECISION INSPECTION. An interesting experiment dealing with selecting and training women for precision inspection was reported by E. S. Evans.[12] The company of which Mr. Evans was formerly employment manager hired women whose work required the use of a variety of plug, straight, location, profile, height, depth, concentric, snap, chamber, and other gauges Measurements involved tolerances from 0 to 0.0001 and 0.0002 inch and as low as 3 seconds on angles. Comparisons of Johansson type block gauges were made to 0.000006 inch

About forty girls were hired. Of these approximately thirty had bachelor's degrees, four or five had master's degrees, and one had considerable more graduate work. With

[10] Richard S. Schultz, "Four-Point Training for Women," *American Machinist,* Vol 87, No. 9, April, 1943, pp 82-4

[11] See "Engineering Courses Train Women," *American Machinist,* Vol. 87, No 14, July 8, 1943, p 99.

[12] E. S Evans, Personnel Director of the Shelton Looms, "Selecting and Training Women for Precision Inspection," *Personnel,* Vol. 19, No 1, July, 1942, pp 444-6.

the exception of a few who had been teachers the girls had almost no previous job experience. The plan was to eliminate at the outset, without using standardized tests, those who had little mechanical aptitude. In the interview an effort was made to have each girl tell about her previous college work, special attention being paid to her interest in laboratory work. Those who strongly disliked it were rejected Next a practical problem in tool inspection was presented, and the girl's response to it was noted. The problem was to find out to what extent the girl could apply her theoretical knowledge in a practical way. Those who evidenced interest in home repair work and in gadgets were preferred to those who did not. The girls who were selected were given one month's training. At the end of that time each girl was put to work with an experienced girl. Eventually the supervisor decided on what type of gauge each girl could do her best work. This experiment showed "that women without previous experience in such jobs can handle them after comparatively brief training."

COUNSELORS' AID TO WOMEN WORKERS. A concern currently employing more than six thousand women workers has tried the experiment of using talented women as counselors to female employees. These counselors help the women war workers with their personal problems during the period of adjustment to employment in industry.[13]

Although the idea of using women counselors is not new, Briggs had no need for them in pre-war days when the company employed about 1500 women. The reason was that the smaller group were experienced factory workers. The attitude of the company toward the counseling service is that it is worth doing under present conditions and that after induction the women may use the service or not as they please.

Counselors with varied backgrounds, such as social workers, mothers of growing families, and registered nurses, were chosen. They were given six weeks' intensive training in company policies and functions before they began their

[13] W E Landis, Industrial Relations, Briggs Manufacturing Company, "Counselors Aid New Women Workers," *American Machinist*, Vol 87, No 5, March 4, 1943, pp 83-5

work as counselors At the conclusion of their training courses they were asked to write a report on what they had learned.

After meeting a group of inductees in her office, the counselor shows them where to find the time clock, lockers, and first-aid and comfort facilities Then each worker is introduced to her superintendent and her foreman.

Inductees are encouraged to bring their personal problems to the counselor. Insurance and other matters are arranged. Workers with young children often ask for help in finding a day nursery or other provisions for taking part-time care of them Many of the women are wives of men in the armed forces who need assistance in finding lodging and eating places Briggs finds that their policy of inviting women to come to the counselor voluntarily is more satisfactory than making such consultations compulsory. The company is looking for new trends in industrial relations. Currently about half their women employees have not worked in industry before. The industrial relations department is of the opinion that the new program of using women counselors will pay for itself in better satisfied and more efficient workers.

TRADE SCHOOLS FOR GIRLS AND WOMEN. Many fine public trade schools for girls and women are operated under state and local plans for vocational education and are federally aided under the Smith-Hughes and George-Deen Acts.

A few examples will illustrate the quality of the service rendered. A total list would be too extensive. The following are intended to be representative·

*New York City*· Central High School of Needle Trades, Foods Trades Vocational High School, Manhattan High School of Women's Garment Trades, Jane Addams Vocational High School, Brooklyn High School for Homemaking, and the Brooklyn High School of Women's Garment Trades.

*Buffalo*· Girls' Vocational High School

*Philadelphia* Helen Fleisher Vocational High School.

*Boston* Boston Trade School for Girls.

*Pittsburgh* Girls' Trade School

*Toledo* Harriet Whitney Vocational High School

*Newark* Essex County Vocational and Technical High School

At the Helen Fleisher Vocational High School for Girls, Philadelphia, in addition to what may be called the regular trades commonly offered in girls' trade schools, courses for vocational training for war production were successfully put into operation. They included courses in light machine shopwork, tool, jig, and fixtures work, radio assembly involving training on an "endless belt," and electric and gas welding. No doubt other girls' schools made similar modifications of their regular programs.

Many girls' vocational schools teach foods trades, including restaurant practice, tearoom practice, and soda fountain work. The courses in the needlework group usually include power machine operating, hand sewing, trade dressmaking and dress design. Cosmetology covers training in hair work, facials, manicuring, and other related instruction.

Semi-professional training, such as that for dental mechanics and assistants to dentists, nurses, and doctors, is also given in some schools. Household management, meat merchandising, other forms of retail selling, commercial art, photography, interior decorating, jewelry design, and jewelry making are trades taught in girls' vocational high schools In the Central High School of Needle Trades, 225 West 24th Street, New York, the following trades are taught to boys and girls on a four year basis, grades nine to twelve inclusive:[14]

Pattern drafting, costume design.
Dress manufacturing
Fur manufacturing.
Leather goods manufacturing
Tailoring (men's)
Shoe manufacturing.
Undergarment manufacturing.
Women's garment operating and manufacturing.
Interior decorating.
Trade dressmaking.
Trade millinery

At the Manhattan High School of Women's Garment Trades, 127 East 22nd Street, New York, the following

[14] University of the State of New York, The State Education Department, Albany, Bureau of Industrial and Technical Education, *General Directory*, 1940-1941

occupations are taught girls in grades nine to twelve inclusive:

Beauty culture.
Cafeteria and tearoom training.
Garment machine operating.
General industrial
Trade dressmaking.
Trade millinery.

In many of the fields of service for which women and girls are prepared there are rapid changes in consumer demands. Consequently it is necessary for teachers to keep in constant touch with emerging trends.

UNITS IN FOODS TRADE COURSE. The outline of a three-year course for girls taking a Smith-Hughes day program is as follows.[15]

FOODS TRADE

*Tenth Year*

*Practical Work* During the production week a group of girls spend each day for one week in the cafeteria preparing food for the student body Another group of girls is assigned to the laundry for six weeks.

A. Cafeteria jobs.
1 Stockroom and food control.
2. Food checker.
3 Counter girl
4 Soup girl.
5. Meat and meat-substitute girl
6 Salad girl
7. Vegetable girl.
8 Dessert girl
9 Cash register girl.
10 Dishwasher.
11. Kitchen patrol.

B. Laundry jobs
1. Care and use of equipment
2. Laundering various fabrics
3 Stain removal.
4 Pressing.
5. Ironing—use of hand iron and mangle.
6. Various temperatures for fabrics.

*Eleventh Year*

The class is divided into two sections, each alternating week-about in the shop and on their related studies in the school.

*Shopwork* · The Whitney Tearoom kitchen is operated by the Foods 11 classes The Tearoom is open to the public by reservation and to our own faculty daily from 11 A M until 1 P M. Special organization luncheons may be reserved for service after 1 P M Once each month a dinner is served to an outside agency in order to give the students a well-rounded training

[15] Harriet Whitney Vocational High School, Toledo, Ohio.

Students are routed on the following jobs in the tearoom kitchen

1. Soups and appetizers
2. Meats and meat substitutes.
3. Vegetables.
4. Salads.
5. Quick and yeast breads.
6. Pastries and desserts
7. Beverages.

*Twelfth Year* (Cooperative)

The demand for girls in the foods trade is ever increasing To help meet the emergency situation arising in the trade this year, Whitney has stepped up its foods training program, and the senior girls are now working on a cooperative basis in industry on a week-about schedule

Related work during the school week consists of:

1. Experimental cookery.
2. Applied science.
3. Geography of foods.
4. Personal regimen.
5. Food accounts.
6. Related art
7. Typing
8. Service and salesmanship.
9. Care of equipment

Vocational Guidance. As a group the girls' vocational high schools of the United States stand second to no other group of schools in our country in the help they give their students through vocational guidance. Counseling, occupational information, and knowledge of working conditions in local industries are stressed. Administrators and teachers keep in touch with employers. They place the girls with care and follow them up to see how well they meet job requirements.

Most of the girls must support themselves entirely or partly. Many times others also depend upon them for support. The schools render a fine service through combining practical instruction with functional vocational guidance. The United States Employment Service and other employment services may be utilized where they have demonstrated their ability to render high-grade service.

Part-Time Instruction for Women. A variety of forms of part-time education is available to women and girls. Since the methods have been discussed in previous chapters, it remains only to mention them in this connection. Among the forms are (1) part-time cooperative classes in which approximately half the student's time is spent in school and the other half in business or industry; (2) part-time diversified occupational training, which has

many of the characteristics of part-time cooperative education, but the related training is arranged by coordinators responsible for a number of occupations. Pupils work independently on related assignments, instead of in classes; (3) part-time continuation school classes; and (4) evening classes for employed persons. Homemakers who find it difficult to attend classes during evening hours may attend classes during portions of the day when they can more easily do so.

PRESENT TRENDS. What many persons would like to know is, How permanent will be the present trend toward the wider use of women in industrial occupations? To what extent will women stay in industry?

The Teachers College, Columbia University, Commission on Post-War Training and Adjustment is of the opinion that "the new status of women as workers during the war will require careful adjustments to their roles as wives, parents, and to their general living conditions. . . . The position of women in the post-war period should be dealt with after all factors have been given just consideration, their value as workers, their relationship as persons and workers to other individuals, and their relationship to society."

On the basis of what women workers have demonstrated to date, there appear to be good reasons for looking forward to a more general participation of women in those industrial occupations in which they have been employed with satisfactory results. The present wide use of women workers in war and civilian industries may prove to be a distinct forward step toward economic and vocational, as well as political, equality of women and men.

### FOR DISCUSSION

1. When did women and girls enter factory employment in the United States?
2. To what extent were women employed in war industries?
3. Discuss several employment policies relating to women workers
4. Demonstrate that women have proved their abilities in occupations new to them
5. Interpret women's contributions to agriculture
6. Describe women's services in communication
7. Tell of women's work (*a*) in business; (*b*) in professions.

8. Mention a dozen other occupations at which women work.
9. How may woman power be used effectively?
10 Compare men and women workers.
11. What kinds of occupations are best suited to women?
12. How do males and females compare in attitudes toward specified incentives?
13 What are the chief factors to be considered in night work for women?
14. Describe Lodge and Shipley's specialized training
15. Appraise the suitability of women for precision inspection and give supporting evidence
16 How does the Briggs Company use counselors for women workers?
17 Mention a dozen public vocational schools for girls, giving the location of each
18. Explain in detail what is taught in girls' vocational schools.
19 Describe the vocational guidance services of girls' vocational schools.
20. Discuss part-time education for women workers
21. Give your ideas of present and probable future trends in the gainful employment of women and girls in (1) agriculture, (2) business, (3) homemaking, and (4) trade and industrial occupations

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## CHAPTER 22

# *Vocational-Technical Training for a More Competitive World*[1]

It is our purpose in this chapter to consider an area of learning that appears to have exceptional value not only today but also for the increasingly competitive days that lie ahead. This area of learning is vocational-technical training.

VOCATIONAL-TECHNICAL TRAINING DEFINED. The phrase vocational-technical training refers to that part or area of vocational education which is predominantly of a technical nature. Curriculums and courses in this field are designed to prepare persons for or to up-grade them in technical occupations that do not require the services of professional engineers The field of study with which this chapter deals is in contrast to vocational education of the manipulative skills type, such as trade training or operator training, on the one hand, and to professional technical education leading to a degree, perhaps in some form of engineering, on the other.

The term semi-professional has been used to describe what is here designated as vocational-technical training. The term terminal technical training has also been used by some institutions

Obviously, exact lines of demarcation between this area of learning and other areas are not always readily evident. For example, an aircraft engine repairman needs to have at his disposal an appreciable amount of technical knowledge, but this information is only necessary for, rather than predominant over, the manipulative work involved.

[1] Based in part upon an unpublished study entitled *Vocational Technical Training at the Post High School Level,* made by the present writer for Dr. J C Wright, Assistant United States Commissioner for Vocational Education, 1941.

The term tradesman, rather than technical worker, therefore, appears to be appropriate for this worker. Yet ability to supervise the work of tradesmen may depend largely upon technical training in addition to trade experience. Again, drafting may or may not call for a large amount of technical training, hence it may or may not be classified as a technical vocation.

NEED FOR VOCATIONAL-TECHNICAL TRAINING. It is generally known that in many vocations there have been extensive developments in scientific and technical knowledge. To an increasing extent science and technology are basic to successful practice and progress in agriculture, business, homemaking, and trade and industrial pursuits.

There is evidence that the demand for technical training at the semi-professional level far exceeds the demand for technical training at the professional level [2] Experience in wartime as well as in peacetime has revealed that it is exceedingly desirable to train persons for many kinds of occupations of a technical, semi-professional nature.

As long as twenty years ago Dr. Lewis A Wilson, Assistant Commissioner of Education and State Director of Vocational Education for the State of New York, issued a pamphlet in which he set forth the advantages and opportunities for a state technical institute [3] In the meantime the departments of education of New York and other states have encouraged the development of vocational-technical training under public auspices. In addition private and semi-private schools of many kinds have entered the field.

The impact of the development of scientific knowledge, of discovery and invention, coupled with progress in the realms of machinery and the applications of power have brought us face to face with the need for increasing post high school training for practically all young persons in America Both general and vocational education needs to be extended by a period of approximately two years. In some instances the increase should be less and in others more In

[2] Society for the Promotion of Engineering Education, *Study of Technical Institutes*, 1931, pp 88-9

[3] Lewis A. Wilson, *The Need for a State Technical Institute*, University of the State of New York, Albany, 1925

the face of changes that have already taken place on an extensive scale in the entrance age for employment, it is imperative that educational practice be brought into line.

NUMBERS TO BE SERVED It is difficult to say exactly how many young persons would benefit significantly from terminal[4] training beyond that now available Probably in the United States between one and two million students need one or two years of terminal training on a post high school basis each year.

In 1940-41 approximately 34 per cent of all junior college training in the United States was terminal in nature. In the opinion of Byron S. Hollingshead, who visited 58 junior colleges and other schools in 1940, the work offered in terminal training that year at the junior college level was not impressive except in a few instances.[5] The high mortality during the freshman year in junior and senior colleges leads to a suspicion that many young people would be better off if they took terminal training at the semi-professional level rather than college work of the conventional sort.

Many thousands of youth and adults who have neither the desire nor the time and money required for a university education could benefit from terminal training, both technical and nontechnical. It would be an unwise expenditure of time and money to send many of them to a university. However, terminal training of the right kind on a post high school level should be distinctly worth the effort.

LENGTH OF COURSES. On the basis of past experience and changing conditions it appears desirable that courses of study be of any reasonable length If ten hours of instruction is enough, that should suffice; if thirty or more hours or two years is needed, that should be the requirement. There is no virtue in uniformity merely for its own sake. Other factors being equal, it is probable that a series of short units is preferable to courses of long duration. Adults often find

[4] The expression terminal training is used to designate instruction that concludes formal or organized instruction for some life activity, rather than instruction that is primarily a foundation for further learning

[5] Byron S Hollingshead, "Some Essentials of Terminal Occupational Education at the Junior-College Level," *School Review*, Vol XLIX, No 2, February, 1941, pp. 97-103

it hard to attend classes over an extended period of time. If a post high school curriculum approximately two years in length is vocational, perhaps 85 per cent of the time should be devoted to vocational courses. In other instances all of the time may be given to vocational education.

As to what proportion of terminal training should be technical, the percentage is certain to vary. In view of the great need for instruction that will bear directly upon making high standards of living a reality for the many, probably from 60 to 85 per cent of the terminal training should be vocational in nature, and technical content deserves to be stressed in vocational education of post high school grade.

Possible Areas of Service. At present states differ widely in their attitude toward supporting post high school education of the type under consideration in this chapter. A large mideastern state has a law prohibiting post high school education as a public school activity. In a state in the far West the courts have ruled that junior college education is secondary education.

Contemporary literature discloses that well-known leaders in general, as well as in vocational education, anticipate much development in post high school terminal training in the years immediately ahead. They look upon post high school terminal training as a necessary and desirable part of a progressive, long-term educational program.

Among the possible areas in which vocational-technical training is needed are:

1. *Agriculture*. Representative of the agricultural schools now doing good work in all-day classes in terminal training in vocational agriculture at the post high school level are the California Polytechnic School, San Luis Obispo, California, and the Inter-Regional Institute, Weiser, Idaho. The latter was operated in cooperation with the National Youth Administration. A considerable amount of vocational-technical training is being given in agriculture to part-time adult students attending federally aided vocational classes.

In the state of New York there are seven or more state-supported technical schools in which vocational-technical training of post high school grade is included. In the field

of agriculture the following schools are examples: Alfred University, a state school of agriculture; Cobleskill School of Agriculture and Home Economics, New York State School of Agriculture, Delhi; and New York State Agricultural and Technical Institute, Canton

2 *Business.* For some years B. Frank Kyker, Chief, Business Education, United States Office of Education, has advocated business training at the post high school level. Momentarily the strong demand for trained workers in retail merchandising is so great that persons can get good jobs without post high school training. There are indications, however, that employers are in need of personnel with higher qualifications. In New York City and elsewhere an appreciable amount of technical business training in distributive and in other branches of the field is under way.

3. *Homemaking* In homemaking, as well as in agriculture and business, technological developments and advances in the sciences concerned have been considerable in extent Post high school terminal training for the challenging occupation of homemaking appears necessary Surely home management, child care, nutrition, health, clothing the family, and other aspects deserve more attention than has been accorded them heretofore. Society needs trained homemakers.

4 *Trades and industries* No one who is familiar with the broad field of trades and industries will deny the need for more and better terminal training at the post high school level The impacts of technological development have probably been more intense and more far-reaching in this area than elsewhere The technical content of many occupations is so extensive and the competition in domestic and foreign markets so keen that vocational-technical training beyond the present high school is imperative for trade and industrial education in the years ahead

It is recognized, of course, that considerable training is now being given in the field mentioned However, it is only a fraction of what is urgently needed For every engineer, industry can use six or more technically trained persons working at the semi-professional level New occupations in such realms as electronics, aeronautics, air conditioning,

plastics, and synthetic products of many sorts will probably call for special technical training, much of it below the university level.

TERMINAL TRAINING RELATIVELY NEW. Without question some terminal training of a semi-professional sort has been given in the United States and elsewhere for many generations As an extensive movement, however, the program is relatively new in the United States.

An examination of the extant literature dealing with terminal training shows few references prior to 1920. From 1920 to 1930 there was a slight increase in articles on the subject The major contributions to the theory and practice of terminal training at the post high school level were made since 1930 [6]

A very helpful bulletin entitled *The Organization and Administration of Technical Courses in Secondary Schools* was published as early as 1936 by the University of the State of New York. The author, W. N. Fenninger, is supervisor of technical and cooperative education for the state of New York.[7] He cites keen competition for business, the need for reducing costs, and the increasing complexity of modern machinery among the reasons for requiring technical training. Another reason mentioned is that training given by industry on the job is frequently narrow and of little use in case of discharge. Then, too, in times of relative inactivity industrial corporations may not continue their training programs.

TYPES OF TRAINING GIVEN BY TECHNICAL HIGH SCHOOLS. For many years technical high schools have been operated in the United States and elsewhere. In our country many of these schools offer curriculums in which various kinds of shopwork and drawing have a prominent place The physical sciences, particularly physics and chemistry, and mathematics are also given considerable attention. These courses are often supplemented by academic ones.

[6] Lois E Engleman and Walter Crosby Eells, *The Literature of Junior College Terminal Education*, American Association of Junior Colleges, Washington, D C, 1941

[7] University of the State of New York, Bulletin No. 1086, February 15, 1936.

The various courses are often comparatively unrelated to one another and are not adjusted to the requirements of particular vocations Consequently the outcome is not vocational proficiency. This fact was demonstrated clearly by Dr. Charles A Prosser in his pioneer doctoral dissertation.[8]

The typical technical high school, including mechanic arts and manual training high schools, offers a curriculum which usually qualifies students for entrance to engineering colleges and universities. However, some of these schools also offer terminal technical courses which specifically qualify persons for junior engineering occupations.

Fenninger demonstrated the modern need for unit technical courses of less than college grade through a study of six hundred graduates. He found that 80 per cent were following "some technical occupation for which their high school technical course had contributed vocational preparation."[9] He is of the opinion that although secondary technical education is needed in all industries, the cost of offering it in cities of less than fifty thousand inhabitants may be prohibitive. In smaller places the logical way of organizing the instruction is in connection with the public schools This may also be true in large cities.

It is undesirable, Fenninger holds, to mix vocational-technical with nonvocational students in shop or technical classes, although it is feasible to combine such students in general education classes. The segregation in shop and technical classes is necessary because of the differences in objectives, content, and application of subject matter

VOCATIONAL-TECHNICAL OCCUPATIONS IN INDUSTRY. Among the representative occupations in the area under consideration are:

1. Drafting of many kinds, such as aeronautical, architectural, mechanical, ship, structural, sheet metal, and electrical drafting.
2. Laboratory technicians in a large variety of employment, including those in chemical plants, paper mills, steel mills, and textile, rubber, food, and agricultural industries Others are in book publishing,

[8] Charles A Prosser, *A Study of the Boston Mechanic Arts High School*, Teachers College Contribution to Education No. 74, Columbia University, 1915

[9] University of the State of New York, *op cit.*, pp 17-9.

leather, sugar, petroleum, electrical, and power industries Still other occupations of this sort are in radio, motion picture, telephone and telegraph, railroading, shipbuilding, machine tool, paint, varnish, and lacquer industries

3 The fields of business, including distributive occupations involving both wholesale and retail merchandising, offer other opportunities.
4 The building trades offer additional opportunities for persons who need technical training of less than university grade.
5. In agriculture there is need for persons with technical training at the post high school level in, for example, dairy manufacture, poultry, beef cattle, sheep and hog production, horticulture, agronomy, vegetable gardening, dairy production, and floriculture.

COMPETITIVE NATURE OF THE FIELD. Several educational agencies are interested in terminal training in the area lying between the end of the present eleventh or twelfth grade and the university. Among these agencies are the junior colleges, private and public. In 1937-38 there were 215 public and 247 private and church-operated junior colleges in the United States The public junior colleges enrolled 82,041 students. In the same year the junior colleges and normal schools of the United States which did not grant degrees enrolled 136,883 men and women. Of these students 121,510 were enrolled in public and private junior colleges [10]

In general the junior colleges see the limitations of service along nonvocational lines. There is a distinct movement among the junior colleges to prepare for terminal, as distinguished from college preparatory, training. This trend is evident in the current literature relating to junior college education. Perhaps the chief handicap is financial. It requires considerable equipment to give vocational-technical education.

Another group of schools, the standard colleges and universities, are also interested in training given at the post high school level. Many colleges and universities look upon the post high school field as a fertile one for recruitment. They would like to see much emphasis given to college preparatory courses. Thus many engineering colleges are interested in developing contacts with schools offering post

[10] Statistics secured from Dr Emery M. Foster, Chief, Statistical Division, United States Office of Education

high school training, with a view toward enrolling well-prepared students who desire to complete college curriculums of four or more years in length

Naturally many administrators of public schools look upon post high school training of the terminal varieties as an expansion that should be an integral part of the public school system. They are now giving a limited amount of it and stand ready to expand the program as soon as conditions warrant. Similarly, many private and semi-private schools of secondary grade are interested in expanding their present programs by providing terminal training at the post high school level.

THE SEPARATELY ADMINISTERED PROGRAM Vocational-technical training at the post high school level will not achieve its purpose, some persons say, if an attempt is made to operate the program as part of existing four-year high schools In such case, it is said, it is exceedingly probable that the program will remain, as most high schools have remained, college preparatory in function. It is conceivable that terminal training of an academic nature may be handled as a continuation of the twelfth-grade work, but even this possibility is open to serious question because of the difference in objective between college preparatory, as contrasted with work-preparatory, training

The outstanding gap, these persons say, in the present training program is for vocational-technical training, which needs to be organized separately from the present high school administrative framework. By separate administration is meant a unit of administration under the board of public education, where the school is a public one, but with its own administrative, supervisory, and teaching personnel, all measuring up to the post high school organization-standards and requirements that will be discussed presently.

THE PROGRAM THAT IS NOT SEPARATELY ADMINISTERED. Other persons take the view that entirely separate organization is not needed. A separate administration, they contend, does not necessarily require entirely separate housing. Nor does it necessarily prevent a competent director of

vocational education, vocational supervisor, or principal of a vocational-technical high school from devoting part of his time to a vocational-technical program at the post high school level It is believed desirable to use full-time staff members wherever possible. This is more feasible in large than in small units

The Pasadena Junior College, of which John W. Harbesen is principal, is cited as a successful example of a school operating a four-year program extending from grade eleven through grade fourteen, inclusive The school is a pioneer in the field and has the distinction of being the largest junior college in the United States The school serves two groups of students: (1) the college preparatory group, and (2) the terminal group The latter is the larger; more than 60 per cent of the students are enrolled in such courses. It has been possible to work out curriculums that are suited to both groups

The four grades are recognized as a single institution, with no hard and fast lines between the twelfth and the thirteenth years

NEED FOR FLEXIBILITY IN ADMINISTRATION. While the two plans of administration just discussed differ widely, it is conceivable that each plan has distinct advantages in certain states and service areas. It can be readily seen that the situation in states like New York and Pennsylvania with many small as well as large colleges and universities may present a different problem from that in other states where there are relatively few institutions of higher learning. In the first instance, young people can get certain kinds of post high school education relatively close to where many of them live; in the second, they cannot.

It appears wise in this early, experimental stage of vocational-technical training, to make sure that considerable flexibility in administration be encouraged This can be done without endangering the standards involved.

DETERMINING SERVICE AREAS Service areas need to be determined by taking into consideration a number of factors. Among them are (1) roads and transportation facilities; (2) topography, (3) community interests; (4) density of

population; (5) occupational interests of the population; (6) economic resources; and (7) attitudes of the persons to be served

In general, and as an approximate measure, it may be stated that technical institutes should be planned for groups not smaller than 200 to 250 persons. There is no direct relationship between the population of a service area and the number of persons who would attend technical institutes if established. It varies from place to place. At the lower level it may be suspected that a service area should have a population of not less than 50,000 to 100,000 persons. This usually means one or more cities or towns with adjoining suburban and rural areas.

Sometimes existing political divisions, such as the county, may constitute the logical unit for technical institutes More often than not, a single county is not the best service area that could be selected.

The matter of determining service areas needs careful study on the part of state departments of public instruction in cooperation with the communities likely to be involved. It seems reasonable to expect that service areas for technical institutes should be larger than service areas for high schools providing instruction through the twelfth grade.

COST OF VOCATIONAL TRAINING. It is generally recognized that terminal training involving the use of laboratories and shops costs more in original installation costs, as well as in costs of maintenance and instruction, than does academic education. Clyde C. Colvert voices the thought that the failure of junior colleges to offer "semi-professional courses of the type needed and wanted by 50 to 90 per cent of the student body is due to the added cost of offering such courses."[11]

If it may be assumed that the cost of vocational-technical training is approximately equal to that of junior college education, the following estimates are suggestive:

Writing in the National Education Association publication called *Addresses and Proceedings,* 1930, Dr George F

[11] Reported by Lois E Engleman and Walter Crosby Eells in *The Literature of Junior College Terminal Education,* ref 371, p 86

Zook[12] reports that Professor Floyd W. Reeves believes that "a thoroughly effective junior college of 230 or more students should expect to have a cost per student of approximately $340 per year." Dr Zook stated also that Professor William Proctor reported that the per capita cost ranged from $200 to $450 in the California junior colleges.

Professor Leonard V. Koos found that among 30 junior colleges in California the median teaching cost per student was $200, and the median total cost per student was one-third more, or approximately $300. Dr. Zook concludes from these data that "a junior college of 200 or more students should not expect to conduct itself on less than $300 per capita."

At the time Dr. Zook wrote his article California granted aid not to exceed $100 per pupil and an initial allowance of $2000 per junior college In 1927-28 this aid amounted to $308,800 for all junior colleges in the state. In Michigan and Minnesota the junior colleges share in state funds allocated to secondary education.

Dr. Zook furthermore pointed out that state universities and colleges quite generally charge from $50 to $100 per student, some more than that. Furthermore, municipal colleges, such as those of Detroit, Wichita, Louisville, Akron, and Cincinnati, often charge from $50 to $75 in fees.

He stated that students who live at home can save approximately $200 per year in living costs, and he gives, as his judgment, the following apportionment of the cost of education:

| | |
|---|---|
| State subsidy | $150 per student per year |
| Student per capita fee | $50 per student per year |
| The community | $100 per student per year |
| Total | $300 per student per year |

It appears probable that the cost of technical institute training will vary considerably. If an entirely new building is to be built, equipped, and operated, the initial costs are certain to be high. If, on the other hand, all or an appreciable part of an existing vocational school or department will provide the physical plant, and some of the other

12 *Ibid.*, pp. 560-4

overhead costs are borne by the school district in other connections, a distinct lowering of costs should result.

The Society for the Promotion of Engineering Education reported that five technical institutes operating on a day basis stated their operating costs per student per year to be respectively $275, $300, $400, $423, and $450. These figures do not include interest and amortization of plant investment.[13]

TUITION CHARGED BY PRIVATE SCHOOLS. The cost of tuition is not necessarily a true measure of the actual cost of operation. This statement is particularly true of endowed institutes like the William Hood Dunwoody Institute of Minneapolis, one of America's outstanding institutes Nor can we assume that the tuition fees charged by private institutes not endowed are a true measure of cost of education. However, something can be gained by studying tuition fees in private schools. It is for this reason that Table 26

*Table 26*

EXAMPLES OF TUITION CHARGED BY PRIVATE TECHNOLOGICAL AND TRADE SCHOOLS FOR ALL-DAY INSTRUCTION*

| | *Tuition* |
|---|---|
| Boston, Mass., Television Institute | $495 |
| Fort Schuyler, Bronx, N Y., New York State Merchant Marine Academy | 300 |
| New York City, R.C A. Institute | 600 |
| Utica, N. Y , Eastern Academy of Laboratory Technique | 500 |
| Philadelphia, Pa , Philadelphia Textile School | 315 |
| Kalamazoo, Mich., Michigan Academy of Radio Science | 300 |
| Chicago, Ill , Coyne Electrical School | 295 |
| Kansas City, Mo , First National Television, Inc. | 345 |
| San Francisco, Cal., United Schools | 175-300 |
| *Aviation Schools* | |
| East Boston, Mass , New England Aircraft School | 500 |
| Mineola, L. I , New York, Safair Hangar B. Roosevelt Field | 107-2551.35 |
| East St. Louis, Ill , Parks Air College, Parks Airport | 267-664 (for 12 weeks) |
| Inglewood, Calif., California Flyer's School of Aeronautics | 275-3850 |
| San Diego, Calif , Ryan Schol of Aeronautics | 100-2295 |

* Porter Edward Sargent, *A Handbook of Private Schools*, 11 Beacon Street, Boston, Massachusetts, 1940, p 788

[13] Society for the Promotion of Engineering Education, *A Study of Technical Institutes*, 1931, p. 188.

is given. It should be kept in mind that tuition in most schools varies with the kind and the length of the course. The total range of tuition is greater than is shown in Table 26 For more complete information consult Sargent's *A Handbook of Private Schools.*

Technical institutes specializing in vocational terminal training should be administered by persons who are occupationally or technically competent, professionally trained, and experienced in vocational education. A technical institute devoted largely to instruction related to industrial occupations should be administered by a person who holds certification as a director of vocational or industrial education or as a director or principal of a vocational-technical high school or a technical institute

If an institute specializes in terminal training in agriculture, it is logical to require the administrative staff to be expert in agricultural education. Similarly, institutes for terminal training for homemakers should be administered by persons of outstanding ability in that field of education When vocational training of several kinds is offered, as is the case in a number of schools now in operation, the principal or director should be chosen on the basis of his known interest in the types of instruction involved and his ability to administer the program.

LEGISLATION FOR PUBLIC SCHOOL PROGRAMS. Before states may use state public school funds to reimburse post high school training it is necessary that there be suitable enabling legislation and appropriations Such legislation should define the kind of instruction to be given, for example: " 'Vocational-technical education' shall mean any form of vocational education, the purpose of which is to prepare for occupations which occupy an area between the skilled crafts and the scientific professions "[14]

The state board for vocational education should be authorized and directed to investigate and aid in the introduction of vocational-technical education.

School districts operating approved high schools "may,

[14] Bill drafted by a committee, Dr. Walter B Jones, Chairman, Harrisburg, Pennsylvania, 1941

with the approval of the State Department of Public Instruction, be authorized to establish a course or courses in vocational-technical education which has for its or their purpose preparation for specific occupational employment apart from or in addition to the combined elementary and high school courses of twelve years."

SUGGESTED STANDARDS. There are reasons to believe that it is important to safeguard the development of vocational-technical training through suitable standards. These will be discussed under three heads: federal, state, and local.

1. *Federal standards.* In order to be eligible for reimbursement from Smith-Hughes or George-Deen funds, certain standards must be met One requirement is that instruction be of less than college grade. This is determined on the basis of the following standards.[15]

*a.* College entrance requirements are not made prerequisite for admission.
*b.* The objective of the training program is to prepare for advantageous employment in industry
*c.* The training program does not lead to a degree
*d.* The program is not required to conform to conditions governing a regular college course.
*e.* The instructors of both shop and related subjects meet all of the provisions of the state plan as to qualifications.

2. *State standards.* The state board for vocational education should set up certain state-wide standards which, on the one hand, recognize the conditions peculiar to the state and, on the other hand, meet the nation-wide standards incorporated in related federal legislation and in principles, policies, and interpretations made by duly constituted federal authority

State standards may, for example, be similar to these:

*a.* Plan required. School districts or service areas desiring to operate vocational-technical schools or departments at the post high school level shall submit a plan of operation to the state board for vocational education. It is suggested that this plan follow the general format provided by the state office and that it meet at least the minimum standards for such

[15] United States Office of Education, *Statement of Policies for the Administration of Vocational Education* Vocational Education Bulletin No. 1, Revised, February, 1937, p. 53

vocational and technical training of post high school grade as have been set up by the state department of education.

*b.* Admission requirements. Admission is restricted to persons who have completed an approved four-year high school course or its equivalent and who can demonstrate their ability to pursue the instruction with profit. Enrollees must also be able to meet such additional vocational, technical, or experience requirements as may from time to time be set up as entrance requirements for any course.

A person who cannot meet the above requirements but who because of maturity and experience qualifies otherwise may be considered for entrance on the merits of the individual case Persons seeking entrance on this basis should write or see the director or principal in charge.

*c* Administrative staff It is difficult to overemphasize the importance of having a competent administrative staff, supplemented by able supervisors and well-qualified teachers Although adequate housing and equipment are essential, they do not make a successful technical institute Therefore, more important than equipment—because that can be secured by able administrators—and probably more important than the particular plan of organization and administration is the selection at the outset of administrators and supervisors who know how to adapt the programs of terminal training to the emerging needs of occupational and national life.

When vocational-technical institutes or departments for terminal training are being planned, the matter of what title an administrator will have is of little consequence unless the title is a guarantee of minimum essentials for the job

*d* Housing The housing facilities should meet the requirements of those for the state school buildings and of building codes in force in the area Plans for new structures and for alterations of existing ones should have the advance approval of the state department of education and such other authorities as pass upon them.

*e* Equipment Equipment needs to be selected with reference to the specific service to be rendered Local requirements deserve careful study. However, larger service areas may also need to be considered. Local trade or technical advisory committees should be consulted. County, state, regional, and federal agents may likewise be of assistance in selecting equipment that is suitable for the training to be given and reasonable in price.

*f.* Text and reference material. In technical training particularly, it is necessary to have adequate textbook and reference material That portion which is in constant use, such as specialized technical periodicals, handbooks, trade catalogs and journals, and which relates primarily to a highly specialized unit of instruction may often be kept to good advantage in departmental shop or laboratory libraries or study rooms. Material that is needed by several departments is usually kept to best advantage in a more central library.

3 *Local standards.* State standards are usually minimum standards. They are those that must be met by all schools of a given type It is expected, of course, that schools or

institutes that can exceed the state standards will do so. Consequently it is relatively common to find cities, towns, and other service areas that have developed local standards of their own higher than those that can be put into effect in the state as a whole.

PUBLIC TECHNICAL EDUCATION IN NEW YORK. In the state of New York the enrollment in public, tax-supported vocational-technical classes increased from 309 in 1921 to 12,487 in 1935 [10] During the year 1935-36 the following New York schools were giving unit technical courses of post high school grade.

Brooklyn Technical High School
Buffalo Technical High School
Endicott High School
Mount Pleasant High School, Schenectady
Saunders Trade and Technical High School, Yonkers
Trott Vocational High School, Niagara Falls
Utica Free Academy

The public unit technical courses in the state of New York given in the institutions just named are not organized to meet college entrance requirements. They are strictly terminal in nature. About 10 per cent of the graduates of these unit courses later went to degree-granting colleges

Other vocational-technical education of post high school grade is being given in the following state-supported institutions.

New York State School of Agriculture, Alfred
New York State School of Agriculture, Canton
New York State School of Agriculture, Cobleskill
New York State School of Agriculture and Home Economics, Delhi
State Institute of Applied Agriculture, Farmingdale
New York State School of Agriculture, Morrisville

At all the institutions with the exception of Farmingdale vocational courses in the trade and industrial field or in home economics are given as well as courses in agriculture. Alfred features building construction and architectural drawing, Canton, industrial chemistry and technical elec-

[10] Data from *The Organization and Administration of Technical Courses in Secondary Schools*, University of the State of New York, Bulletin 1086, February, 1936

tricity; Cobleskill, home economics; Delhi, home economics and building construction, Morrisville, automotive engineering, watch and clock making, and home economics

Candidates for admission to these schools must be at least sixteen years of age and must have completed four years of high school. They must also have good moral character and good health

TECHNICAL TRAINING ON THE COOPERATIVE BASIS.[17] The Wyomissing Polytechnic Institute of Wyomissing, Pennsylvania, is a cooperative technical institute and a junior engineering college The institute operates on the plan of four weeks of school alternating with four weeks of practical work in the plants The students are divided into two groups of equal size. One begins in the shops; the other, in the institute. At the end of each four-week period the groups change.

Among the advantages of this plan are these: (1) it combines theory and practice—study with the work on the job; (2) the personal contact with experienced men in industry and with actual shopwork carried on under real working conditions is very helpful to effective vocational and technical training; (3) students learn to meet the ever-new problems with which industry and business are confronted; the emphasis is on the new, emerging requirements of tomorrow; (4) students develop essential work habits and other character traits that are of special value to successful work in industry.

The apprentices in the cooperative department at the Wyomissing Polytechnic Institute are regarded as employees attending the institute for necessary theoretical knowledge rather than as students placed in industry to get work experience Students taking the junior engineering college curriculum follow a similar plan. During the first four weeks they spend their time in school and then spend four weeks in employment. During the second year they devote all their time to school

GENERAL MOTORS INSTITUTE The General Motors Institute, Flint, Michigan, offers a program of cooperative

17 Adapted from the catalog of the Wyomissing Polytechnic Institute.

training the purpose of which is to fit students for positions in various phases of the industry. Students are selected by the divisions of the corporation in cooperation with the institute. The program is sufficiently flexible to meet various training needs. Thus one or two years of training may be provided on a cooperative basis with the trainees alternating between work and school on either a four-week, an eight-week, or other basis.

Trainees may also, if it is found desirable, be given instruction for shorter or longer periods of time The cooperative plan is followed because it is believed that best results are obtained when technical instruction and practical experience in the plant are given in regular alternating periods.

The school periods are carefully planned so as to cover essential technical instruction and to meet present and future employment requirements. In their practical work students learn to get along with others, to work under supervision, to follow instructions, and to understand and appreciate their part in and relationship to the work of the plant. Such experience gives incentive to study and motivates learning.

Work schedules are planned by the management of the Division of General Motors in cooperation with the institute. Such schedules are designed to provide definite work for students, to require them to make good as workmen, to provide basic mechanical and technical training, to give broad experience, and to make provision for practical experience in the area of special choice

Availability of Terminal Training to Older Persons as Well as Youth. The current trend toward more area schools would appear to favor the development of terminal training at the post high school level. Terminal technical training should be subsidized, as is vocational high school education, from federal vocational education funds. Enrollment should be open to older persons, to high school graduates, and under certain conditions to other young persons who can profit by the work offered, even though they are not high school graduates.

Vocational and educational guidance should be available. Rehabilitation training, to be discussed more fully in Chapter 23, should be given when needed to persons who have served in the armed forces and to civilians.

Terminal training at the post high school level should not only help to stabilize the labor supply in the postwar period, but also it offers a means of improving persons so that they will be better able to meet the standards of a more competitive future.

## *FOR DISCUSSION*

1 Explain what is meant by technical training

2 Illustrate what is meant by vocational-technical training.

3. Show the need for vocational-technical training in (1) agriculture, (2) business, (3) homemaking, (4) trades and industries.

4 Estimate the number of individuals who may be served through terminal training at the post high school level

5. Give your judgment concerning the length of courses and of curriculums in terminal training.

6. Describe the larger areas of service in which terminal courses may be expected to function

7. How old is terminal training in the United States?

8 Compare the instruction traditionally given in technical high schools with terminal training.

9. Describe the scope of terminal technical training

10 What educational agencies are interested in terminal training at the post high school level?

11 Present the chief arguments in favor of a separately administered program.

12 What are the principal arguments in favor of programs not separately administered?

13. Why and to what extent do you advocate flexibility in administration?

14. What is your opinion as to the need for larger units of administration for vocational-technical schools of less than college grade?

15. How much does terminal training cost?

16. Comment on tuitions charged by private schools.

17 How important is it to have the programs administered by persons who are occupationally competent?

18. If legislation providing for terminal training is required, what should be included in the law?

19. Cite five conditions accepted by the United States Office of Education as evidence that instruction is of less than college grade.

20 Discuss state standards for vocational-technical training.

21 Mention a half-dozen or more schools offering terminal technical training in your field of major interest

22 Discuss the advantages of technical training on a cooperative basis.

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# CHAPTER 23

## *Rehabilitation for Civilians and for the Armed Services*

### CIVILIAN REHABILITATION

During the last quarter of a century there has developed a growing feeling of responsibility for handicapped persons. Inspired by results accomplished by the rehabilitation of soldiers, a number of states, including Minnesota, Wisconsin, Massachusetts, and North Dakota, as well as California, Virginia, Pennsylvania, Illinois, and New York, as early as 1918 to 1920 passed legislation relating to civilian rehabilitation.[1]

On June 2, 1920, a national rehabilitation act entitled "An Act to provide for the promotion of vocational rehabilitation of persons disabled in industry or otherwise and their return to civil employment" was passed and approved.[2] This basic national act provided for the fiscal year ending June 30, 1921, the sum of $750,000 for cooperating with the states and maintaining vocational rehabilitation. For the year ending June 30, 1922, and thereafter for a period of two years the sum of $1,000,000 was to be provided annually. Additional appropriations were made thereafter. The sums specified were allotted to the states in the proportion that their population bears to the total population of the United States, not including territories, outlying possessions, and the District of Columbia. This act of 1920 was amended. The latest amendment will be discussed presently under vocational rehabilitation act of 1943.

Some Forms of Rehabilitation Service. During the twenty-five years or more in which the national act has been in operation much has been learned concerning policies and

[1] Oscar M Sullivan and Kenneth O. Snortum, *Disabled Persons: Their Education and Rehabilitation*, Chapters I and II, The Century Company, 1926.

[2] Public Law 236, 66th Congress, H R 4438.

practices. Several relatively distinct and yet often interdependent forms of rehabilitation service are recognized: physical restoration; vocational training; and job placement, adjustment, and follow-up Each will be discussed briefly.

1. *Physical restoration.* In many instances physical restoration, often involving surgical and therapeutic treatment, is the first logical approach. For example, an appreciable number of persons can be made employable, or more employable, through relatively simple operations such as those for hernia Whether physical restoration should be attempted can be determined by competent medical personnel Surgical repair may be followed by some form of therapeutic treatment designed to help the individual function as normally as possible In some instances certain forms of work may help in the process of restoration. The term occupational therapy is used to designate this form of help.

Of course, mental restoration is also involved in some instances. The results of nervous strain may need to be corrected Self-confidence may have to be restored Various forms of physiotherapy and electrotherapy are used with good results. Recent experiences in connection with the war have led to distinct improvements in surgical and medical treatment The death rate from wounds was reported as 15 per cent in World War I and as 2.5 per cent in 1943.

2 *Vocational training.* Many handicapped persons reporting for rehabilitation service have already had surgical or medical attention With them the major problem is to get a job that they can fill. This may call for vocational training given in vocational schools—agricultural, business, homemaking, or trade and industrial. The instruction may be given on either a part-time or a full-time basis in either public or private schools. If numbers warrant, separate classes are usually organized When there are few trainees they may be scheduled with students who are not handicapped, or they may be given individual instruction.

The instruction is directed toward helping the trainee regain former skills or assisting him to acquire new ones that are suited to his capacities and interests Wherever possible the trainee's former background of training and experience is used as a foundation for what he is to be

taught. For example, a person who was formerly a carpenter and builder may be taught architectural drafting.

3. *Job placement.* The United States Public Health Service has estimated that one out of eight persons eligible for rehabilitation requires training, that three out of eight need physical restoration, and that four out of eight need job adjustment. To find suitable work for handicapped individuals is more difficult than it might appear Workmen's compensation and occupational insurance are often factors in the situation. Since the accident risk and the cost of accident protection are higher for persons who are injured than for those who are not, it is more difficult to place persons who are known to present risks greater than the average.

It is, of course, in the interest of the public as well as of the individuals directly concerned to place them on jobs that, other factors being equal, present the lowest possible accident risk. A second injury of similar kind is especially unfortunate.

Job placement, therefore, calls for careful diagnosis of the individual coupled with a comprehensive and thorough knowledge of working conditions in many kinds of employment. Periodic follow-up service is essential.

VOCATIONAL REHABILITATION ACT OF 1943 Through an act of Congress, approved July 6, 1943, the older act of 1920 and amendments made to it before 1943 have been brought up to date. The new act goes by the short title "Vocational Rehabilitation Act Amendments of 1943."[3]

The act is administered by the Federal Security Administrator. The funds made available by the act are subject to certain conditions Each state submits a state plan for vocational rehabilitation of disabled individuals [4]

This act relates to *civilian* rehabilitation. Rehabilitation for persons who have served in the armed forces of the United States and have become handicapped as a result of service-connected disabilities is made available through another act administered by the Veterans Administration It will be discussed later.

[3] Public Law 113, 78th Congress, Chapter 190, 1st Session, H R. 2536.

[4] In the act Alaska, Hawaii, and Puerto Rico are referred to as states.

The Federal Security Administrator, Paul V. McNutt, appointed Michael J. Shortley director of the civilian rehabilitation program in the new Office of Vocational Rehabilitation, Federal Security Agency. John Aubel Kratz was made associate director, and the staff of the Division of Rehabilitation in the Office of Education was transferred to become the nucleus of the new organization.

State Plans for Civilian Rehabilitation. The Rehabilitation Act of 1943 specifies that a state plan for vocational rehabilitation shall "designate the State board of vocational education (herein referred to as the 'State board') as the sole agency for the administration, supervision, and control of the State plan . . . " A provision is included enabling the state board to delegate certain functions to agencies, such as the state blind commission. Under the act federal funds may not be allotted directly or indirectly "to the purchase, preservation, erection, or repair of any building or buildings, or for the purchase or rental of any land for administrative purposes."

The state treasurer, or corresponding officer, serves as custodian of the funds received under the act The state plan must show the plan, policies, and methods to be used in carrying out the provisions of the act and its supervision and administration

Only employable individuals come within the provisions of the act. The administrator shall define what is meant by employable. The state plan is to set up qualifications of personnel but the act specifically mentions that the administrator "shall exercise no authority with respect to the selection, method of selection, tenure of office, or compensation of any individual employed in accordance with such provisions."

The state plan is to contain provisions for administration, other than the establishment and maintenance of personnel standards as found to be necessary by the administrator. The state board is to make such reports or provide such information relating to rehabilitation as the administrator may require.

Rules, regulations, and standards are to be incorporated

in the state plan They include provisions for securing good conduct, regular attendance, cooperation of trainees, and reduction of allowance in case of on-the-job training. Maximum fees to be paid for training and maximum duration of training are to be designated. So also are maximum schedules of fees for surgery, therapeutic treatment, hospitalization, medical examination, and prosthetic devices Finally, maximum rates of compensation for personnel are to be specified

The act provides that under the state plan rehabilitation service shall be available, under such rules and regulations as the administrator shall prescribe, "to any civil employee of the United States disabled while in the performance of his duty and to any war-disabled civilian (as defined in section 10)."

According to Section 10, the term war-disabled civilian means:

(1) Any civilian (except a person who is paid by the United States, or any department, agency, or instrumentality thereof, for services as a civilian defense worker) disabled while serving at any time after December 6, 1941, and prior to the termination of the present war as declared by Presidential proclamation or concurrent resolution of the Congress—

(A) in the Aircraft Warning Service, or

(B) as a member of the Civil Air Patrol, or

(C) as a member, in accordance with regulations prescribed by the Director of the Office of Civilian Defense, of the United States Citizens Defense Corps in the protective services engaged in civilian defense, as such protective services are established from time to time by regulation or order of such Director, or

(D) as a registered trainee taking training in accordance with regulations prescribed by such Director for such protective services, and

(2) Any civilian disabled while serving at any time after December 6, 1941, and prior to the termination of the present war as so declared as an officer or member of the crew of a vessel owned or chartered by the Maritime Commission, or the War Shipping Administration, or operated under charter from such Commission or Administration; but no individual shall be considered to be a war-disabled civilian unless he is disabled as a result of disease or injury, or aggravation of a preexisting disease or injury, incurred in line of duty during such period, not due to his own misconduct.

PAYMENTS TO STATES Each state which has an approved plan for vocational rehabilitation may receive for each

quarter or other shorter payment period·

1. The necessary cost (exclusive of administrative expenses) to such state of vocational rehabilitation to war-disabled civilians.
2. One-half of the necessary expenditures (exclusive of administration) for other disabled individuals, and
3. One-half of necessary expenditures (exclusive of administrative expenses) for rehabilitation services to disabled individuals (not including war-disabled civilians) found to require financial assistance, after full consideration of eligibility for
   *a.* Corrective surgery or therapeutic treatment.
   *b* Necessary hospitalization (not to exceed ninety days)
   *c.* Transportation, occupational licenses, and customary occupational tools and equipment.
   *d* Prosthetic devices.
   *e.* Maintenance.
   *f.* Training
4. Expenditures for the proper and efficient administration of the plan.

ADMINISTRATION OF CIVILIAN REHABILITATION. In order to carry out his duties under the act, the administrator is authorized to make studies, investigations, and reports. Appropriate courses of instruction are to be provided until July 1, 1945. Payment for use of facilities and services shall be by check either in advance or as reimbursement. The administrator is authorized to make such rules and regulations as may be necessary for the administration of the act and to delegate to any officer or employee of the United States "such of his powers and duties, except the making of rules and regulations, as he finds necessary in carrying out the purposes of this Act."

CENTRAL AND DISTRICT OFFICES. Probably all the states, including Hawaii, Puerto Rico, and Alaska, will set up central offices, supplemented in some instances by district offices. The central office usually serves as headquarters for giving out information about the program, for organizing, operating, and supervising the program of the state, for setting up standards and training personnel that will meet them, for making studies, surveys, and reports relating to civilian rehabilitation, for preparing budgets and approving expenditures under federal and state laws, and for such other duties and responsibilities as come within the provisions of the state plan for civilian rehabilitation.

District offices are used as headquarters serving specified areas under the general supervision of the central state office. The district offices establish working relations with agencies and individuals in order to establish contact with those who are entitled to the privileges made available under the state plan for civilian rehabilitation and to serve them.

REHABILITATION PROVISIONS OF THE FAIR LABOR STANDARDS ACT. The Fair Labor Standards Act of 1938, Section 14, deals with learners, apprentices, and handicapped workers. To prevent curtailment of opportunities for employment, the administrator of the act is authorized to issue orders or regulations exempting to such extent as shall be considered proper, learners, apprentices, and handicapped persons from the minimum wage regulations. Special certificates are issued for specified times

Up to the present many employers have been unwilling to go through the red tape of applying for such special certificates It is hoped that ways and means will be found to make the procedure of securing these special certificates more practicable for all persons concerned.

WORKMEN'S COMPENSATION LAWS AND REHABILITATION. A study made of worker's compensation laws with reference to the employment of the handicapped reveals that few of the laws provide for more than the payment of benefits and for readjustment of the disabled worker to employment. In their operation in most states the workmen's compensation laws appear to work against the employment of physically handicapped persons [5]

Perhaps the most harmful element is the lack of provision in some of the laws and the insufficient provision in others for paying compensation in the event of a second injury. Many compensation laws are so framed that an employer of physically handicapped persons is required to assume a double risk. He may be held liable for both the original injury, which may have resulted before the man

[5] Leonard A Robinson, *Workmen's Compensation Laws in Relation to the Employment of the Physically Handicapped,* United States Office of Education, Misc 2152, Rev, January, 1941.

was employed by him, and for a second one. If the insurance company fixes its rates on what is called the merit rating system, it may raise the employer's rate on all his employees. In other instances where waiver provisions are included, practically the entire cost of the second injury is thrown upon the disabled person. The most essential step required appears to be to make more equitable provision for the payment of the extra cost of compensation in case of second injuries.

CASEWORK IN REHABILITATION[6] The term casework refers to methods of dealing with individuals on the bases of their particular circumstances and needs. It is fundamental that each individual shall receive adequate diagnosis and that the data secured be interpreted accurately A sound plan of procedure should be worked out for each person. Every service, from the initial interview to the time when the case is closed, must be rendered in a thorough, professional manner To this end the cooperation of the client and of others is necessary. Guidance of several kinds, such as educational, vocational, and recreational, needs to be provided. All services that are essential to the individual require supervision.

Various techniques can be employed in finding cases Investigation and diagnosis can be carried out in predetermined manner. It is desirable to have a state-wide referral system operated in accordance with recognized principles and using the rehabilitation office as a clearing house for all cases coming within the scope of the state plan.

DIAGNOSING INDIVIDUALS There are many aspects that need consideration, such as physical and mental characteristics, personality, and other factors. Among these characteristics age, sex, previous training, and experience need to be recognized. Others are the nature of the disability, its extent, and probable duration. Medical examination can determine whether the disability can be removed or alleviated so as to make the individual employable. Psychological examinations will reveal the nature of mental and emotional endowments, or personality and character traits

[6] United States Office of Education, Misc. 2990, July, 1942.

and of vocational interests and aptitudes. Vocational tests may reveal occupational competencies, and actual employment will serve as the acid test of what the individual can do.

The employment objective needs to be attainable in a reasonable length of time. The client should be able to meet legal and other recognized standards in the occupation selected. The work must not involve excessive fatigue produced because of the handicap or otherwise. The personal interest and strength of will of the client have much to do with his accomplishments and future occupational success

RELATED AGENCIES AND SOURCES OF INFORMATION. A number of agencies are interested in rehabilitation. State departments of public instruction have served as administrative agencies for civilian rehabilitation since 1918 or 1920. Local boards of education frequently are interested. In some states 20 per cent or more of civilian rehabilitation cases are served with the aid of public schools.

Public employment offices and also some good private ones work with rehabilitation offices Crippled children's agencies, such as the International Society for Crippled Children, render a great service and may be of help.

Public health departments, federal, state, and local, are keenly interested in cooperating. The American Red Cross is cooperating in vocational rehabilitation.[7] When patients in Army station hospitals are recommended for disability discharge, they will be referred by the American Red Cross for vocational rehabilitation Army and Navy regulations make known to officers of the Medical Corps that the Red Cross social worker is prepared to give advice regarding available government benefits and assistance in resuming civilian life. The Red Cross social worker informs the vocational rehabilitation agent in the community adjacent to the hospital when there are persons recommended for discharge because of physical injury or disease whose consent to referral has been obtained. The persons referred may be returned to their homes as well as to facilities of the Veterans Administration and to state and private hospitals.

[7] *Vocational Rehabilitation and the American Red Cross,* United States Office of Education, Misc 2228, Rev., July, 1942.

The Veterans Administration, it has been pointed out, functions independently of the federal-state rehabilitation service for civilians. However, disabled ex-service men who are discharged because of disabilities of pre-existing origin and who fail to establish compensation claims with the Veterans Administration are referred automatically to the civilian rehabilitation service for consideration.[8]

Vocational rehabilitation services may be available to such individuals as the deaf and the hard of hearing, the visually handicapped, persons with diseases of the heart and of the circulatory system, and individuals handicapped through tuberculosis. It has already been said that persons injured through accidents in employment or otherwise may be eligible However, eligibility must be determined in each case

The Office of Education reported that in the year 1940-41 approximately 3 per cent of the cases served by state programs of vocational rehabilitation were handicapped by heart disease. Approximately 8 per cent suffered from tuberculosis[9]

LIVING MAINTENANCE. When training is planned for a client one of the first considerations is maintenance. Somehow the person must meet the costs of living during the period of training He may, for example, receive something under workmen's compensation laws. However, what he receives may be inadequate. Medical and surgical treatment often make a heavy drain on available funds. The Rehabilitation Act, Revision of 1943, makes it possible to assist individuals more adequately than was previously possible. Only in rare instances does the handicapped person have savings or income or is he able to negotiate a loan that will cover living costs during the training period. Sometimes trainees are able to work part-time and attend school part-time Often the training is limited to what the trainee can learn on the job.

WAYS IN WHICH SCHOOLS CAN COOPERATE. In some communities the public schools have cooperated with voca-

[8] Based on personal correspondence with I M Ristine, Agent, Vocational Rehabilitation Division, July 27, 1943

[9] United States Office of Education, Misc 2940 and Misc. 2948.

tional rehabilitation offices for many years. This cooperation has usually been in the nature of providing vocational training to handicapped individuals living within the service area of the schools. Many other schools could make similar provisions. School shops, laboratories, and classrooms can sometimes be used to advantage for special groups of adults, such as handicapped persons, during afternoon or early evening hours. In other instances, training can be arranged on a cooperative basis by which the trainee works half-time and goes to school half-time. In many instances provisions can be made on an intensive, full-time basis.

School administrators have the opportunity of keeping in touch with representatives of the rehabilitation programs, both civilian and veterans', and with public employment services. The fine resources of public vocational schools deserve to be placed more widely at the disposal of those who are physically handicapped and who can benefit to the extent of making themselves employable.

ECONOMIC BENEFITS OF VOCATIONAL REHABILITATION. An interesting graph, shown in Fig 13, was prepared by John A. Kratz to illustrate the trends in earning capacity of handicapped persons before and after rehabilitation. It should be pointed out that, during the years following rehabilitation and the 1927 check-up, wage levels in the United States increased, and that they decreased at the time the 1931 follow-up study was undertaken. This fact explains certain trends shown in the diagram. It is quite clear that rehabilitation pays not only in dollars and cents but also in other ways to be mentioned presently

SOCIAL AND PERSONAL, NONFINANCIAL BENEFITS. If the economic benefits of rehabilitation are great, the social and personal, nonfinancial ones are greater. Perhaps only persons who are handicapped and members of their families can fully understand what a tremendous blessing it is to overcome handicaps sufficiently severe to prevent one from earning a living and of participating effectively in community life.

Rehabilitation is not a form of charity and must not be looked upon as such. It is in fact an effort on the part of

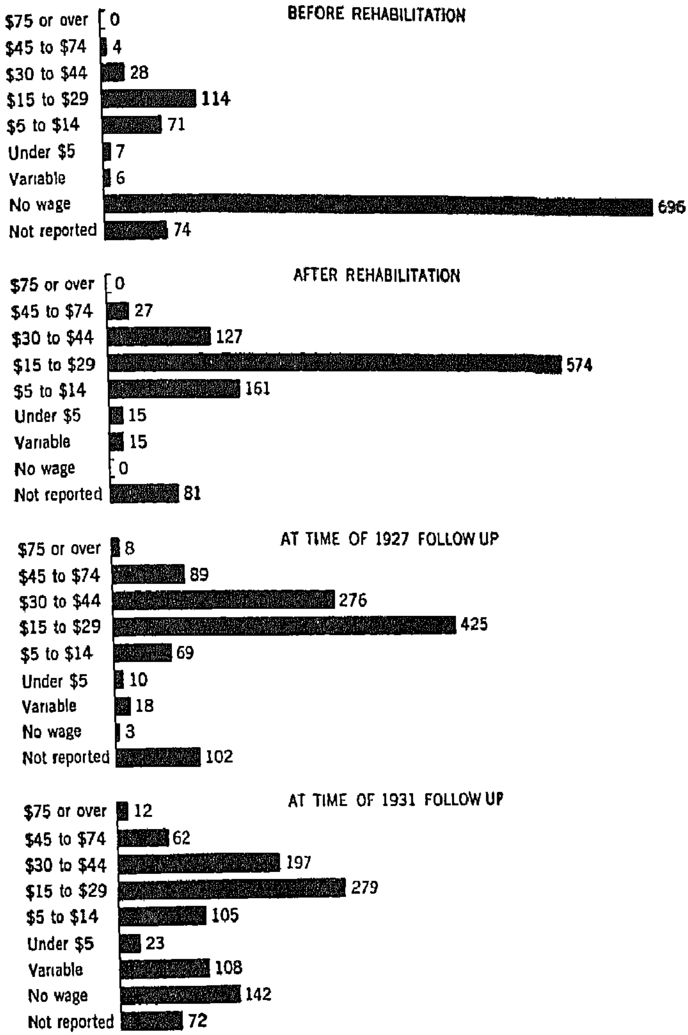



Fig 13 How vocational rehabilitation affects earning capacity. Numbers on the bar graph represent the number of trainees per 1000 earning the wages specified in terms of dollars per week. Source John A Kratz, *Vocational Rehabilitation of the Physically Handicapped,* United States Office of Education, Vocational Division Bulletin No 190, pp 28-9.

society to perform so far as possible the duty it owes to the unfortunate. Vocational rehabilitation is a conserver of human resources. It is an investment in fellow human beings that will make them able to do what every right-thinking man and woman wants to do—to provide for himself or herself, for members of the family, and to contribute to the betterment of the community, state, and nation

## REHABILITATION FOR THE ARMED SERVICES

VETERANS ADMINISTRATION [10] The Veterans Administration was created by the act of Congress approved July 3, 1930. This act gave the President authority to consolidate and coordinate under a single control all federal agencies dealing with the affairs of veterans, including the Bureau of Pensions, the United States Veterans Bureau, and the National Homes Service

The Veterans Administration administers all laws relating to the relief of, and to other benefits provided through law for, former members of the military and naval forces of the United States. The Veterans Administration has the responsibility of extending relief to veterans and to dependents of deceased veterans of all wars, as well as to veterans and to dependents of deceased veterans who served in the military and naval establishments during time of peace, as provided for by acts of Congress. These laws include compensation, pensions, and vocational rehabilitation legislation, as well as government insurance, military and naval insurance, death benefits, adjusted compensation, emergency and other officers' retirement pay, soldiers' and sailors' civil relief, and hospital and domiciliary care of veterans of all wars

ORGANIZATION OF UNITED STATES VETERANS ADMINISTRATION. The Administrator of Veterans Affairs is in a key position He is responsible for the control, direction, and management of the whole program of the Veterans Administration. Final decisions or orders are subject to his review upon appeal.

[10] *United States Government Manual*, Summer, 1943, pp 582-5

An assistant administrator is in charge of the following services: Veterans Claims Service, Dependents Claim Service, and the Vocational Rehabilitation Service. These three services are grouped in the Office of Assistant Administrator, Compensation, Pension, and Vocational Rehabilitation.

The Office of Assistant Administrator, Finance and Insurance is responsible for all matters relating to the accounting for public funds appropriated for services to veterans The Office of Assistant Administrator, Medical and Domiciliary Care, Construction, and Supplies is responsible for all matters relating to medical care, treatment, hospitalization, and related services.

VETERANS FIELD ORGANIZATION. Administration Facilities and Regional Offices representing the Veterans Administration are located in all but one of the states. Managers have charge of the field stations The functions of a facility include conducting examinations, caring for hospitalized ex-service men and women, and performing laboratory and clinical service Another function is rendering social service, including recreational and library service. Included, furthermore, are other functions, such as furnishing homes to disabled veterans incapable of self-support and maintaining buildings, grounds, and cemeteries.

The regional offices serve as a clearing house for information of special interest to veterans. For example, information concerning vocational rehabilitation may be secured from them. There are Insular Offices of the Veterans Administration in Honolulu and in San Juan Copies of *Federal Laws Relating to Veterans of Wars of the United States* are made available through the Veterans Administration at a nominal price.

RELATIONSHIP OF SCHOOLS TO VETERANS' REHABILITATION. Current indications are that the Veterans Administration intends to make full use of public and private schools in the states for training men and women disabled in the service of the United States. It seems reasonable to believe that preference will be shown to those schools and agencies that already have the equipment, staff, and organi-

zation necessary to render superior service or who can obtain such equipment and personnel. Previous experience in training disabled adults will no doubt be considered among other factors when arrangements are made. Living conditions, as well as training facilities, deserve consideration. Local initiative is likely to be an important factor, other things being equal

Separate classes should be required where possible The length of courses may vary from a few months to not more than four years. It is important that the job of instruction be superior in every respect.

### *FOR DISCUSSION*

1. Name six or more states that pioneered in vocational rehabilitation.
2. Briefly describe the national rehabilitation act of 1920
3. Explain what is meant by (*a*) physical restoration, (*b*) vocational training for the disabled, (*c*) job placement
4. Who administers the Vocational Rehabilitation Act, Amendment of 1943?
5. Cite the major provisions of a state plan for civilian rehabilitation
6. May federal rehabilitation funds be used for maintaining, repairing, or purchasing buildings?
7. Define a war disabled civilian
8. For what purposes may funds under the amendment of 1943 be used?
9. Discuss the rehabilitation provisions of the Fair Labor Standards Act of 1938
10. Make an evaluation of the effect of the double risk feature of workmen's compensation laws when applied to handicapped persons looking for jobs.
11. Discuss diagnosing handicapped individuals
12. Name several agencies interested in rehabilitation
13. Why is maintenance an important element in rehabilitation?
14. Explain how schools can cooperate with leaders representing civilian rehabilitation.
15. How significant are the economic outcomes of vocational rehabilitation?
16. Describe some of the social and personal, nonfinancial benefits of vocational rehabilitation
17. Explain the organization and purposes of the Veterans Administration
18. Describe the field services of the United States Veterans Administration.
19. Explain how the schools may cooperate with the program of vocational rehabilitation sponsored and administered by the Veterans Administration.
20. What is meant by (*a*) occupational therapy, (*b*) physical therapy, (*c*) psychotherapy?
21. Cite one or more fundamental principles underlying vocational rehabilitation

22 Report at length upon the state plan of rehabilitation in your state.

23 Report upon an actual case where rehabilitation service was rendered.

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# CHAPTER 24

## *Trends and Emerging Needs*

In this closing chapter some of the current trends and emerging needs in vocational education will be discussed. We are standing upon the threshold of a new era in which there will be many changes. Among them will be changes in sovereignties, political affiliations, foreign relations, and foreign markets. Other changes are anticipated in consumer demands, ways and means of living, and occupations. Rapid transformations are expected from wartime to peacetime pursuits on a global scale.

Widespread unemployment must be avoided. Our goal is "full employment for all." Youthful joblessness and frustration were at the bottom of the revolutionary movements in Europe during the past twenty years Vocational education is a process and a program that helps to make persons employable

In the era from 1917 to the present, vocational education has made great strides The Smith-Hughes Act was passed; its constitutionality was established, its program of service has been of outstanding help to the United States in times of tranquility and of stress. The George-Deen Act and other laws have been passed to supplement the provisions of the National Vocational Education Act of 1917 It is not surprising, therefore, to see evidences at this time of widespread appreciation on the part of the people generally of what our nation-wide program of public, tax-supported vocational education means to our present and future welfare

THINKING IN LARGE TERMS. It is obvious that the war has resulted in tremendous developments in the way of inventions, discoveries, and improvements in production. Instead of being astounded by the current speed of produc-

tion, creative thinkers are using present achievements as a springboard for thinking and performance in larger terms The United States, having pioneered in mass production and in the application of power to manufacturing, knows how to proceed To illustrate, the machine tool industry, which produced machine tools worth approximately $100,000,000 each year from 1935 to 1938, doubled that amount in 1939, quadrupled it in 1940, produced machine tools worth over $700,000,000 in 1941, and is currently producing still more

Those who believe that machines will replace skilled workers may be amazed to learn that approximately 35 per cent of the workers required to provide products of war are skilled workers, 40 per cent are semi-skilled workers, and 25 per cent are employed in unskilled jobs.

LONG-RANGE PLANNING. During the period of the war millions of persons were given short, intensive training courses, largely of the operative type It is probable that in the postwar era more attention will be given to long-range occupational planning. This development is likely to dovetail with educational planning that will stress exploratory experiences in grades through the ninth, followed by general education in the opening years of the high school and specific vocational education during the last two or three years of the high school as now constituted, plus approximately two years of post high school training Frequently the latter years will probably be given over to terminal training for effective living, including preparation for efficient, socially useful work.

MORE EXTENSIVE USE OF VOCATIONAL SCHOOLS. There are reasons to believe that in the years ahead the vocational schools will be called upon to render services far greater than those given so far. This development is expected because the schools have demonstrated what they can do; they have won wide public approval;' certain forms of instruction can be given best under school auspices, industry is organizing more and more for production and less for instruction, and labor, employers, and the general public believe wholeheartedly that the recognized vocational

schools are best able to render the services for which they are equipped and staffed.

WIDER USE OF COMMUNITY FACILITIES. The vocational schools of tomorrow are likely to be less concerned than formerly in restricting their service to the local district in which the students reside Regional, state, and national training needs deserve consideration. It is not desirable to train more persons than are needed, but rather to use existing and future facilities to prepare those that are required.

While the federally aided vocational schools of secondary grade in the United States have more than a billion dollars invested in buildings and equipment, even those housing and material facilities are far too limited For some years leading vocational schools have made progress in supplementing their training resources by using those outside of school in their service areas Closer cooperation with industry, business, the farms and homes, is anticipated to the end that the total available training resources, physical and human, in the various communities shall be put to effective use.

LARGER UNITS OF ADMINISTRATION Most of the smaller school districts are likely to be handicapped financially and otherwise in the years ahead as they have been in the past Perhaps some state and federal aid beyond that now available can be secured to remedy to a greater extent the inequalities that exist in public support of education However, by and large there appears to be a growing support for larger units of administration, which have certain well-known advantages In general, the larger units should be able to offer better educational service in greater variety at less cost for each unit hour of instruction than can be provided by most small schools. The more specialized and advanced the instruction, the greater is the need for larger units of administration.

CLOSER RELATIONS THROUGH ADVISORY COMMITTEES. Among relatively recent, widespread trends that of having representative advisory committees assist educators in conducting vocational schools is worthy of mention. Some

fifteen hundred or more such committees are functioning today—not perfectly, by any means, but in a promising manner. It is expected that advisory committees will be used more widely than heretofore, that they will be selected more carefully than has sometimes been done in the past, and that the mutual understanding and goodwill which are among the expected outcomes will be a means of improving vocational education. Vocational education constantly needs the help and advice of persons in direct contact with actual working conditions

MORE CAREFULLY PREPARED PLANS. There appears to be a definite trend toward more careful planning State plans for vocational education are better than they were some years ago, and local plans are likewise better Each has benefited from experience More states are publishing their plans, and the better provisions are used or adapted by other states. Local directors are keeping accurate records and are developing plans of their own within the framework of the approved state plans Estimates of cost and of growth are increasing in reliability Unit cost data are more generally available

REVISED CURRICULUMS Modern curriculums in all major areas of vocational education—agricultural, business, homemaking, and trade and industrial—are more standard where standardization is desirable and more flexible where flexibility is essential than in the past. There is a trend toward developing curriculums with more teacher participation and with the aid of advisory committees and special consultants

It is common practice to have groups of teachers working enthusiastically in cooperation with supervisory and administrative officers, often with the collaboration of teacher-trainers, on curriculum projects.

BETTER COURSES OF INSTRUCTION. Progressive teachers are not satisfied with past accomplishments They are constantly looking for better instructional content, arrangement, and methods of presentation. The current trend is toward more factual subject matter, better motivation, more inspirational teaching, more true-to-life learning, and more

objective testing Visual aids of many sorts are used. Cutaway, operative models are popular.

BETTER TRAINED SUPERVISORS AND ADMINISTRATORS. When the Smith-Hughes law was passed in 1917 few, if any, supervisors and administrators were professionally trained in accordance with current standards in vocational education Professional standards have been raised considerably during the last twenty-five years. It appears reasonable to expect further progress in the same direction in the years ahead.

Leaders in general and vocational education are working more cooperatively than formerly. Supervisory and administrative officers in general education are today expected to have an appreciative understanding of vocational education. Similarly, leaders in the latter field are expected to be well grounded in general as well as in vocational education.

BETTER QUALIFIED TEACHERS It is necessary only to compare the certification requirements of vocational teachers of the 1920's with those of the 1940's to see that much progress has been made. Vocational education has outgrown the pioneer stage Ambitious, gifted, and socially minded young men and women in a long array of vocations are now glad to qualify adequately for life-service in vocational education. Not only are vocational teachers better qualified than before, but also they are being selected with more discrimination for the kinds of teaching for which they are best suited by experience, training, personality, and interest.

MORE STATE AND FEDERAL AID. The present trend is toward operating public, tax-supported vocational education on a basis calling for relatively less local and more state and federal financial support. The reasons for this trend were set forth in detail in an earlier chapter—the states and the federal government have many means of raising revenue not available to local authorities; there are great differences in wealth among local districts and among states which need to be considered and helped through programs of financial equalization so that all can operate at least a "minimum defensible program"; and, finally, the mobility of our population is so great that education, both general and vocational, is definitely a state and federal as well as a local matter.

IMPROVED EQUIPMENT. This war has taught us the futility of obsolete equipment This fact is recognized more clearly today than it was a few years ago. The vocational schools of tomorrow will no doubt be more modernly equipped than most of them have been previously The experiences of men and women in the armed forces and in war production industries as well as in business and on the farm are such as should help to modernize tools, equipment, and the physical plant Vocational education should benefit distinctly in the postwar period from lessons learned in wartime.

MORE COLLABORATION Another lesson to be deduced from recent experience, and from that which is age-old too, is that it pays to collaborate with like-minded individuals and groups. There appears to be a growing effort on the part of school persons to collaborate with community persons and agencies who may help to make the schools better. The wider use of advisory committees, closer contacts with places of employment, more extensive use of teachers with outstanding vocational experience, and the wider recognition given many kinds of adult education are cases in point.

WIDER USE OF TESTS AND MEASUREMENTS There appears to be a widespread interest in making quizzes, tests, and examinations serve instructional as well as testing and measuring purposes Teachers are using tests that measure what they are supposed to measure with greater reliability than heretofore. The tests are more comprehensive, more objective, more varied in form, more valid, and more reliable. Many of these tests help the teacher to diagnose his own weaknesses as a teacher as well as the strong and weak points of his students Standardized tests, such as those for measuring intelligence, personality, vocational interests, aptitudes, and appreciations, will probably be used more extensively in the future.

IMPROVED GUIDANCE Many evidences point toward improvements in vocational guidance. States are setting up definite certification requirements Some of them are making special aid available for specialists in occupational

information and guidance More persons are being employed as full-time counselors. Systematic training in occupations and in employment and working conditions is replacing occasional, optional, and haphazard guidance.

Proportionately More Older Students. Prior to 1935 an appreciable number of boys and girls were gainfully employed between the ages of fourteen and sixteen years The National Recovery Act and later social security legislation did much to change this condition. Young people are going to full-time school longer In the ten or fifteen years after 1917 it was not uncommon to enroll in vocational classes boys fourteen years of age or over who had completed the sixth grade Now vocational education is often deferred until the student has completed the ninth or tenth grade

Furthermore, adult education of many kinds is much more popular today than it was some years ago. A desire to serve adults through vocational education wherever and whenever there is a valid, justifiable reason is evident. Rapid technological changes, as well as changes in foreign relations, in consumer demands, and in economic conditions, make it necessary to provide refresher and supplementary vocational education to many adults. Medical science has lengthened the span of life expectancy. More scientific knowledge is required than formerly. These and other factors result in proportionately older and more mature students in vocational education classes

Trends in Agricultural Education. Little more than a beginning has so far been made in providing adequately for the educational needs of out-of-school young men on farms. In line with the current trend toward enlarging the scope of the services of tax-supported schools to reach adults as well as youth in all-day classes, a broadened and enriched program of vocational agriculture for young men on farms may be anticipated

Near urban centers there are many persons who will find it desirable to earn part of their living through farming and part of it through industrial, business, or other employ-

ment. This situation would appear to call for modifications in present curriculums.

In agriculture, as in trades and industries, greater mechanization may be anticipated A wider variety of farm machinery, more power, more cooperative buying and selling, and more community action vocationally and otherwise are expected in the postwar period

There is also a growing trend toward employing teachers of vocational agriculture to handle a complete program including all-day, part-time, and evening classes.

Trends in Distributive Training Greater mechanization is expected in business occupations as well as in manufacture, transportation, building trades, and farming. Pre-employment business training will probably stress familiarity with a variety of business machines.

In distributive education part-time and evening classes for workers already employed, the distributive occupations will no doubt be emphasized. The instruction will be based on actual job requirements Personality traits will not be overlooked An effort will be made to reduce the costs of distribution through carefully planned instruction

Wherever possible, homogeneous grouping is desirable. An attempt will be made to select methods of instruction that are suited to the maturity, previous experience, and ability of the learners

The use of model stores and training under actual employment conditions are likely to become more popular as store-school cooperation becomes more common.

Trends in Home Economics. In homemaking, as well as in agricultural and trade and industrial education, a strong, well-equipped, and adequately staffed all-day school or department serves as an effective hub around which various forms of part-time and evening training of related kinds can develop and prosper Between 1937 and 1942 the all-day federally aided schools and departments of vocational home economics showed an increase in enrollment of approximately 555,000 individuals. This increase is very commendable. Instead of using laboratories of the tradi-

tional type the trend is toward providing homemaking cottages that duplicate home conditions.

Health, food and nutrition, and problems of family living are likely to receive much attention in the postwar period. There are indications that nursery schools will be in greater demand than formerly. In Philadelphia the Board of Public Education has recently been requested to establish one hundred of them to aid in taking care of infants and young children of working mothers

TRENDS IN INDUSTRIAL EDUCATION Economists and labor and industrial leaders look forward to a period of full employment after the war It is conceded that through proper planning and cooperative action on the part of private as well as public effort a major period of unemployment in the postwar years may be avoided However, the probability is that much unemployment will result unless effective postwar planning is undertaken at once and on a comprehensive basis

Stuart Chase says, "What is physically possible is financially possible."[1] He would concentrate upon four postwar economic goals: (1) producing essential food, clothing, shelter, and other goods and services that will keep every American family healthy and secure; (2) producing similar goods and services for other countries; (3) producing the comforts we strongly desire, such as automobiles, radios, and air conditioning, and also luxuries for those who can afford them; and (4) reviving public works, including the construction of schools, highways, and new projects required by America in transition.

There is every indication that specialization in manufacture will continue to increase, that in the future more horsepower per worker will be used, that more wealth in terms of physical plant and equipment will be needed per worker, that invention and discovery will revolutionize many processes, and that we are on the threshhold of a more competitive era All these trends mean that without question leaders in vocational education must be alert. There are

[1] Stuart Chase, "Financing Postwar Prosperity," *The Journal of the National Education Association of the United States*, Vol 32, No. 8, November, 1943, p 221.

big things to be done tomorrow. Our fast-moving world has great need for intelligent, socially inspired leadership in trade and industrial education.

By way of illustration, the age of electronics is here now. Electronic equipment of many kinds is performing the seemingly impossible. The age of air-conditioned homes for the middle class appears close at hand Youth likes to fly How long will it be before buses, passenger trains, and ships will give way to planes for fast, long-distance service? Will plastics and other new materials revolutionize the construction of homes, factories, automobiles, and aircraft? These and many other problems face those who plan the work in factory, mill, and laboratory.

### Women in Gainful Employment after the War

In Chapter 21 attention has been called to the fact that women have clearly proved their ability to do well many kinds of work formerly restricted to men. It seems probable that a relatively small proportion of women engaged in war production, wage-earning occupations will want to remain in related kinds of work in the future. It is likely that for the most part women took part in war production activities for patriotic reasons, that they want the war to end as soon as our national objectives have been attained, and that most of them look forward to going back to homemaking as their choice of postwar activity Most married women apparently look upon homemaking as the vocation through which they can be of maximum service to their families and to society. As long as the husband is able to provide adequately for the family, the wife has little desire, as a rule, to work as a wage earner Nor do most husbands want their wives to work for wages under the condition mentioned Many girls and women found out that performing a man's work is not half as glamorous as they thought.

### *FOR DISCUSSION*

1 What use can we make of known trends in vocational education?

2. List five major trends in vocational education which you feel have not been included in this chapter.

3 To what extent is there a trend toward a higher entrance age in vocational schools?

4 Is there a noticeable trend toward vocational-technical training of less than college grade?

5 What are the weaknesses in long-range planning?

6 To what extent are vocational school buildings and equipment used on a twenty-four hour basis?

7 What is meant by the phrase, "Education has a constantly receding goal"? Is this statement true of vocational education?

8. Why do we need to be continually revising curriculums?

9 When was the present Occupational Information and Guidance Program organized on a national basis?

10. What are some of the specific trends in agriculture?

11 Which comes first (*a*) vocational training for new industries involving new jobs or (*b*) invention, engineering planning, experimentation, and development of a market for a new product? Why?

12 What in your opinion is the most significant trend in education for homemaking?

13 Under what conditions will we in America be able to enjoy high standards of living in the postwar era?

14 The last fifty years have seen many new inventions and discoveries which have been utilized by man to raise his standard of living and to increase his life expectancy The automobile, radio, X-ray, phonograph, and sulfa drugs are typical of these developments List five more and explain how vocational education is related to their success or failure

15 What is the function of a local advisory committee serving a trade and industrial school?

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